Congressional Research Service
Informing the legislative debate since 1914

Omnibus Energy Legislation, 109th Congress: Side-by-Side Assessment of House and Senate Versions of H.R. 6

July 25, 2005

Congressional Research Service
https://crsreports.congress.gov
RL33006

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

The House approved an omnibus energy bill (H.R. 6) on April 21, 2005, that would open the Arctic National Wildlife Refuge (ANWR) to oil and gas leasing, substantially change oversight of electric utilities, increase the use of alternative motor fuels, provide $8.1 billion in energy tax incentives, and authorize numerous energy R&D programs. The Senate passed its version of H.R. 6 on June 28 without ANWR provisions but with $14.1 billion in tax incentives—including a nuclear energy production credit—and provisions on global climate change. Highlights of the bills include:

Electricity. Both the House and the Senate versions of the bill would repeal the Public Utility Holding Company Act (PUHCA), but the Senate bill has provisions for more stringent oversight of utility mergers than the House version. Standard market design (SMD) would be remanded to the Federal Energy Regulatory Commission (FERC) by the House bill, while the Senate version would terminate the rulemaking altogether.

Renewable Energy. An increase in renewable fuel and ethanol consumption to 5 billion gallons annually by 2012 would be mandated by the House bill, as opposed to 8 billion gallons in the Senate bill. The Senate bill includes a "renewable portfolio standard" (RPS)—rejected in the House—requiring utilities to generate at least 10% of their electricity from renewable energy sources by 2020.

MTBE. Methyl tertiary butyl ether (MTBE), a gasoline additive widely used to meet Clean Air Act requirements, has caused water contamination. The House and Senate bills would phase out the use of MTBE with some possible exceptions and provide funds for MTBE cleanup, with some differences. The House version would provide protection for fuel producers and blenders of renewable fuels and MTBE from defective product lawsuits, while the Senate bill would cover renewable fuels but not MTBE.

Energy Taxes. The House bill would reduce energy taxes by about $8.1 billion over 11 years, as compared with $14.1 billion in the Senate version. A nuclear energy production tax credit is included among the Senate incentives.

ANWR. The House-passed bill would authorize oil and gas exploration, development, and production in ANWR, with a 2,000-acre limit on production and support facilities. No ANWR provisions are included in the Senate version.

Energy Production on Federal Lands. Both bills include numerous provisions to increase energy production on federal lands. The Senate version of H.R. 6 would require an inventory of oil and natural gas resources on the Outer Continental Shelf (OCS), while the House version would not.

This report will not be updated.

Contents

Tables

Appendixes

Contacts

Introduction

Since the Arab oil embargo in 1973-1974, Congress has periodically taken up energy policy legislation with a comprehensive scope—often spurred by the price of oil and U.S. dependence upon imported oil. The price of crude oil began to rise in 2003—exceeding $60/barrel (bbl) in early July 2005—setting much of the context for renewed debate over omnibus energy legislation in the 109th Congress.

National and world demand for oil continues to grow. However, domestic oil production in the United States continues to decline. As a consequence, the gap between U.S. production and consumption has had to be covered by increased oil imports. These imports, roughly 6 million barrels per day (mbd) after the Arab oil embargo, now exceed 10 mbd to satisfy total U.S. oil consumption of nearly 21 mbd.[1]

Addressing dependence on imported oil raises a number of issues touching on both demand and consumption of fossil fuels. Chief among these are the production of additional fossil fuels, development of alternative energy sources, and conservation and energy efficiency. Energy infrastructure has also been a growing issue, including the oil refining and distribution sector, and electricity transmission, reliability, and regulation. Increased use of domestic coal and reassessment of many issues associated with nuclear energy have drawn attention as well.

Developing a comprehensive approach to energy policy that balances economic, security, and environmental issues—as well as competing regional priorities in the United States—is an enormous challenge for policymakers. Keeping a clear eye on distinguishing between short- and long-term policies is also difficult but important in keeping expectations realistic for what comprehensive legislation can achieve.

In the 109th Congress, the House approved an omnibus energy bill (H.R. 6) on April 21, 2005, that would open the Arctic National Wildlife Refuge (ANWR) to oil and gas leasing, substantially change oversight of electric utilities, increase the use of alternative motor fuels, provide $8.1 billion in energy tax incentives, extend the nuclear accident liability system, and authorize numerous energy R&D programs. The Senate passed its version of H.R. 6 on June 28 without ANWR provisions but including $14.1 billion in tax incentives and provisions on global climate change. The two versions of the bill contain many provisions from the conference report on an omnibus energy bill (also numbered H.R. 6) in the 108th Congress that was blocked by a Senate filibuster.

The House- and Senate-passed bills in the 109th Congress would mandate increasing levels of ethanol production through 2012 but allow regions to opt out under certain conditions. Use of methyl tertiary butyl ether (MTBE) as a domestic gasoline additive would be phased out, but states could authorize continued use and under the House bill the President could void the ban. Producers of MTBE and renewable fuels would be granted protection (a "safe harbor") from product liability lawsuits under the House bill, while only renewable fuels would be covered in the Senate bill. MTBE liability protection proved highly contentious in the Senate in the 108th Congress.

The Senate bill includes a "renewable portfolio standard" (RPS)—rejected by the House Energy and Commerce Committee—requiring utilities to generate at least 10% of their electricity from renewable energy sources by 2020. Also, the Senate bill would establish a credit-based

[1] U.S. Department of Energy, Energy Information Administration, at http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/current/pdf/tableh1.pdf.

deployment program to encourage technologies to reduce greenhouse gas intensity and establish programs to deploy technologies in developing countries. Neither of those provisions is in the House bill.

Provisions are also included in both bills to increase access by energy developers to federal lands. Several new statutory efficiency standards would be established for consumer and commercial products and appliances, and other standards would be set by the Department of Energy (DOE).

Major Provisions

Electricity Regulation

Title XII in the House- and Senate-passed bills would create an electric reliability organization (ERO) that would enforce mandatory reliability standards for the bulk-power system. All ERO standards would be approved by the Federal Energy Regulatory Commission (FERC). Under this title, the ERO could impose penalties on a user, owner, or operator of the bulk-power system that violates any FERC-approved reliability standard. This title also addresses transmission infrastructure issues. The Secretary of Energy would be able to certify congestion on the transmission lines and issue permits to transmission owners. Permit holders would be able to petition in U.S. District Court to acquire rights-of-way for the construction of transmission lines through the exercise of the right of eminent domain. In the Senate bill, FERC could approve participant funding for transmission line construction. A provision that would have required FERC to approve participant funding for new transmission lines was removed in markup by the House Committee on Energy and Commerce.

Under the House bill, FERC's Standard Market Design notice of proposed rulemaking would be remanded. The Senate bill would terminate FERC's Standard Market Design notice of proposed rulemaking. Under both Senate- and House-passed bills, native load service obligations would be clarified, and federal utilities would be allowed to participate in regional transmission organizations.

Under both bills, the electricity title would repeal the mandatory purchase requirements under the Public Utility Regulatory Policies Act (PURPA). The Public Utility Holding Company Act of 1935 (PUHCA) would be repealed. The Federal Energy Regulatory Commission and state regulatory bodies would be given access to utility books and records.

FERC would be required to issue rules to establish an electronic system that provides information about the availability and price of wholesale electric energy and transmission services under the House version, and could issue such rules under the Senate version. Under both versions, for electric rates that the Federal Energy Regulatory Commission finds to be unjust, unreasonable, or unduly discriminatory, the effective date for refunds would begin at the time of the filing of a complaint with FERC but not later than five months after filing of a complaint. Criminal and civil penalties would be increased. Under the House version, the Federal Power Act would be amended to give FERC review authority for transfer of assets valued in excess of $10 million. The Senate version would also apply to the purchase, lease, or acquisition of an existing generating facility that has a value in excess of $10 million and is used to generate electricity for FERC jurisdictional interstate wholesale sales. In addition to the House requirements, the Senate version would require FERC to determine that the proposed transaction would not result in harmful cross-subsidization with a non-utility associate company.

(For additional discussion on these issues, see CRS Report RL32728, *Electric Utility Regulatory Reform: Issues for the 109th Congress*; and CRS Report RL32133, *Federal Merger Review Authority*.)

Renewable Fuel Standard and MTBE

The House and Senate versions of H.R. 6 would amend the Clean Air Act to eliminate the requirement that reformulated gasoline (RFG) contain 2% oxygen to reduce automotive emissions, a requirement which prompted the widespread use of MTBE and, to a lesser degree, ethanol. Instead, the bills would establish a new requirement that an increasing amount of gasoline contain renewable fuels such as ethanol. The House bill would require that 3.1 billion gallons of renewable fuel be used in 2005, increasing to 5.0 billion gallons by 2012, and the Senate bill would require 8.0 billion gallons by 2012 (compared with 3.4 billion gallons used in 2004). However, concerns have been raised that this requirement could significantly increase the pump price for gasoline in some areas.

Because of concerns over drinking water contamination by MTBE (a major competitor with ethanol), both bills would ban the use of MTBE in motor vehicle fuel, except in states that specifically authorize its use, not later than December 31, 2014, under the House version and four years after enactment in the Senate version. The ban has two possible exceptions. First, the Environmental Protection Agency (EPA) may allow MTBE in motor fuel up to 0.5 percent by volume, in cases that the Administrator determines to be appropriate; and second, under the House version, the President may make a determination, not later than June 30, 2014, that the restrictions on the use of MTBE shall not take place. The House bill would authorize $2.0 billion and the Senate bill $1.0 billion to assist the conversion of merchant MTBE production facilities to the production of other fuel additives. Further, the bills would preserve the reductions in emissions of toxic substances achieved by the RFG program (although they use different baselines for determining required reductions).

One of the most controversial provisions in the House version of H.R. 6 is the establishment of a "safe harbor" from product liability lawsuits for producers of MTBE and renewable fuels (such as ethanol). The safe harbor provision would protect anyone in the product chain, from manufacturers down to retailers, from liability for cleanup of MTBE and renewable fuels or for personal injury or property damage based on the product being deemed defective. (That legal approach has been used in California to require refiners to shoulder liability for MTBE cleanup.) The safe harbor would be retroactive to September 5, 2003. Prior to that date, five lawsuits had been filed. After that date, at least 150 suits were filed, on behalf of 210 communities in 15 different states. The Senate bill includes the safe harbor provision for renewable fuels but not MTBE; the Senate safe harbor would not be retroactive.

(For additional information, see CRS Report RL32865, *Renewable Fuels and MTBE: A Comparison of Selected Legislative Initiatives*; CRS Report RL30369, *Fuel Ethanol: Background and Public Policy Issues*; and CRS Report RL32787, *MTBE in Gasoline: Clean Air and Drinking Water Issues*.)

Energy Taxes

After the conference report on H.R. 6 in the 108th Congress was blocked in the Senate, several of the measure's energy tax provisions—estimated at $1.3 billion over 10 years—were included in the Working Families Tax Relief Act of 2004 (P.L. 108-311), enacted on October 4, 2004. About $5 billion in additional energy tax incentives over 10 years were part of the American Jobs Creation Act of 2004 (P.L. 108-357) enacted on October 22, 2004.

Many of the energy tax incentives in H.R. 6 from the 108th Congress that were not enacted in 2004 have been repackaged into the H.R. 6 in the 109th Congress, with significant differences between the House and Senate versions. First, the Senate bill would provide net tax reductions of $14.1 billion over 11 years compared with $8.1 billion in the House-passed version. Second, most

of this difference is accounted for by tax cuts for the electricity industry, energy efficiency, and renewable and alternative fuels. The Senate bill provides absolutely and relatively more tax cuts for energy efficiency and alternative fuels. The differences in tax cuts for alternative fuels are particularly striking: $12 billion in the Senate bill vs. $0.6 billion in the House bill. The Senate bill also provides more tax incentives for energy efficiency investments than the House bill. The House bill provides much larger tax cuts for the electricity industry, particularly for electricity infrastructure.

Thus, in a relative sense, the House bill is tilted more toward fossil fuel production, while the Senate bill's tax cuts are tilted more to the production of alternative and renewable fuels and energy conservation. However, the absolute dollar tax cuts for oil, gas, and coal are also somewhat larger in the Senate bill than in the House bill ($5.8 billion vs. $4.7 billion).

(For more background, see CRS Issue Brief IB10054, *Energy Tax Policy*.)

Nuclear Energy

Strong incentives for building new commercial nuclear power plants are included in the Senate version of H.R. 6, and both the House and Senate bills would reauthorize the Price-Anderson Act nuclear liability system for 20 years and authorize DOE to build an advanced reactor in Idaho.

The strongest nuclear incentive is the Senate bill's 1.8-cents/kilowatt-hour tax credit for electricity produced by nuclear reactors. The credit would be available for up to 6,000 megawatts of new capacity—the equivalent of about five or six new reactors—for the first eight years of operation. The nuclear production tax credit was also included in the energy bill conference report in the 108th Congress, and the Energy Information Administration concluded then that the credit would provide sufficient incentives for new commercial reactors to be built.[2] The Senate bill would also authorize loan guarantees for new reactors. Neither of those incentives is included in the House version.

Reauthorization of the Price-Anderson Act is generally considered to be a prerequisite for new reactors. Under Price-Anderson, commercial reactor accident damages are paid through a combination of private-sector insurance and a nuclear industry self-insurance system. Liability is capped at the maximum coverage available under the system, currently about $10.7 billion. Even without reauthorization, existing reactors continue to be covered, but any new ones would not. Price-Anderson also authorizes the Department of Energy to indemnify its nuclear contractors. The limit on DOE contractor liability is the same as for commercial reactors, except when the limit for commercial reactors drops because of a decline in the number of covered reactors.

Both versions of H.R. 6 would provide a 20-year extension of Price-Anderson to the end of 2025. The nuclear industry contends that the system has worked well and should be continued, but opponents charge that Price-Anderson's liability limits provide an unwarranted subsidy to nuclear power. The House version of the bill would also require the Nuclear Regulatory Commission (NRC) to assess nuclear power plant security and require additional security measures.

(For more information, see CRS Issue Brief IB88090, *Nuclear Energy Policy*.)

Renewable Portfolio Standard and Energy Efficiency

The Senate version of H.R. 6 would require retail electricity suppliers (electric utilities, except for those in Hawaii and that sold less than 4 billion kwh) to obtain a minimum percentage of their

[2] U.S. Department of Energy, Energy Information Administration, *Analysis of Five Selected Tax Provision of the Conference Energy Bill of 2003*, SR/OIAF/2004-01, February 2004.

power from a portfolio of new renewable energy resources. The minimum renewable energy target, or Renewable Portfolio Standard (RPS), would start at 2.5% in 2008, rise in steps of 2.5% every four years, and level off at 10% from 2020 to 2030. The House version of H.R. 6 does not have an RPS provision.

Eligible resources for the RPS in the Senate bill would include "new renewable energy" produced from solar, wind, ocean, and geothermal energy, most forms of biomass, landfill gas, and incremental hydropower. Also, additional energy above the average generation in the three preceding years from "existing" (already placed in service) facilities using solar, wind, ocean, biomass, landfill gas, incremental hydropower, or incremental geothermal energy would be eligible to satisfy the RPS target. The base for calculating the target production level would exclude power from existing hydropower and municipal solid waste generation. Thus, states with a large amount of existing hydropower or municipal solid waste generation would have a proportionately lower target for new generation. However, there may be a debate in conference about whether existing nuclear and hydro generation, or some portion of it, would be eligible to satisfy the RPS target.

Tradable credits would be created, which could be purchased in place of alternative power sources. The credits would function like those in the Clean Air Act emission allowance trading system, which has lowered compliance costs for air pollution regulations. Electricity suppliers could "carry forward" surplus credits for up to three years. Double credits would be provided for facilities on Indian land and triple credits would go to distributed generators under 1 megawatt in size. A cost cap for the credits is set as the lesser of 1.5 cents/kilowatt-hour (kwh) or 200% of the average market value of the credits. DOE collections from credit sales and penalties would fund grants to states to promote renewables.

Both versions of H.R. 6 would legislate new energy efficiency standards for several consumer and commercial products and appliances. For certain other products and appliances, DOE would be empowered to set new standards. Also, the bill would provide increased funding authorizations for the DOE weatherization program and establish a voluntary program to promote energy efficiency in industry.

(For additional information, see CRS Issue Brief IB10020, *Energy Efficiency: Budget, Oil Conservation and Electricity Conservation Issues*, and CRS Issue Brief IB10041, *Renewable Energy: Tax Credit, Budget, and Electricity Production Issues*.)

Arctic National Wildlife Refuge

The congressional debate over whether to open ANWR to development has continued for more than 40 years. H.R. 6 as passed by the House would authorize oil and gas exploration, development, and production in a portion of ANWR, with a 2,000-acre limit on certain production and support facilities. The Senate version contains no ANWR provisions.

Development advocates argue that ANWR oil would reduce U.S. energy markets' exposure to crises in the Middle East; boost North Slope oil production; lower oil prices; extend the economic life of the Trans Alaska Pipeline System; and create many jobs in Alaska and elsewhere in the United States. They maintain that ANWR oil could be developed with minimal environmental harm, and that the footprint of development could be limited to a total of 2,000 acres.

Opponents of development in ANWR argue that intrusion on this ecosystem cannot be justified on any terms; that economically recoverable oil found (if any) would provide little energy security and could be replaced by cost-effective alternatives, including conservation; and that job claims are overstated. They also maintain that the footprint of oil development, despite a

provision in the measure to limit certain facilities to 2,000 acres, would still be scattered in many parcels across the landscape, and would have a greater impact than is implied by any limit on total acreage. They also argue that past proposals to limit any footprint have not been worded so as to apply clearly to the extensive Native lands in the Refuge, which could be developed if the Arctic Refuge were opened.

(For additional information, see CRS Issue Brief IB10136, *The Arctic National Wildlife Refuge: Controversies for the 109th Congress*; and CRS Report RL31115, *Legal Issues Related to Proposed Drilling for Oil and Gas in the Arctic National Wildlife Refuge* and CRS Report RS22143, *Oil and Gas Leasing in the Arctic National Wildlife Refuge (ANWR): the 2,000-Acre Limit.*)

Domestic Energy Production

The Department of the Interior (DOI) has estimated that roughly a quarter of oil resources and less than one-fifth of gas resources on Indian lands have been developed. Both versions of H.R. 6 would encourage production on federal lands through royalty reductions for marginal oil and gas wells on public lands and the outer continental shelf. Provisions are also included to increase access to federal lands by energy projects—such as drilling activities, electric transmission lines, and gas pipelines. In addition, the House bill would prohibit EPA from regulating hydraulic fracturing to protect drinking water sources.

(For additional information, see CRS Reports RL32873, *Environment and Energy: Selected Issues in H.R. 6, 109th Congress*, and RL32262, *Selected Legal and Policy Issues Related to Coalbed Methane Development*.)

Hydrogen and Fuel Cells

The House version of H.R. 6 would authorize $4 billion for FY2006-2010 for hydrogen and fuel cell R&D; the Senate version would authorize $3.3 billion over the same time frame. The bill would also establish a goal of producing commercial fuel cell vehicles and developing hydrogen infrastructure by 2020. Critics of the Administration suggest that the hydrogen program is intended to forestall any attempts to significantly raise vehicle Corporate Average Fuel Economy (CAFE) standards, and that it relieves the automotive industry of assuming more initiative in pursuing technological innovations. On the other hand, some contend that it is appropriate for government to become involved in the development of technologies that could address national environmental and energy goals but are too risky to draw private-sector investment.

(For additional information, see CRS Report RS21442, *Hydrogen and Fuel Cell R&D: FreedomCAR and the President's Hydrogen Fuel Initiative*; and CRS Report RL32196, *A Hydrogen Economy and Fuel Cells: An Overview*.)

Overview of House and Senate Versions

The House and Senate versions of H.R. 6 generally address similar areas of energy policy, although there are major differences. For example, only the House bill would open ANWR to oil and gas activities, and only the Senate version includes extensive provisions explicitly addressing global climate change. **Table 1** provides a brief comparison.

Table 1. Major Provisions of House and Senate Energy Bills

Provision	House	Senate
Electricity restructuring	Changes regulatory requirements to emphasize competitive market formation.	Changes regulatory requirements to emphasize competitive market formation. Additional FERC oversight of mergers and acquisitions required.
Arctic National Wildlife Refuge (ANWR)	Opens ANWR to oil and gas leasing.	No provision.
MTBE and renewable fuels liability protection ("safe harbor")	Protects MTBE and ethanol producers from product liability lawsuits.	Protects ethanol producers from liability lawsuits.
Global climate change	No specific provisions.	Establishes a credit-based deployment program to encourage technologies to reduce greenhouse gas intensity and establishes programs to deploy technologies in developing countries.
Equipment and appliance efficiency standards	Legislates new standards for 7 products, calls for DOE standards by rulemaking for 3 products.	Legislates new standards for 15 products, calls for DOE standards by rulemaking for 4 products.
Nuclear energy	Extends Price-Anderson coverage for new commercial reactors and DOE contracts. Includes nuclear security provisions.	Provides tax credits and loan guarantees for new nuclear power plants. Extends Price-Anderson coverage for new commercial reactors and DOE contracts.
Renewable energy content in motor vehicle fuel	Requires motor vehicle fuel sold in the United States to contain 5 billion gallons of ethanol or other renewable fuel by 2012.	Requires motor vehicle fuel sold in the United States to contain 8 billion gallons of ethanol or other renewable fuel by 2012.
Renewable Portfolio Standard	No provision.	Requires electric utilities to provide minimum percentages of power from new renewable sources.

Organization of Report

The remainder of this report provides a section-by-section summary comparison of the provisions of H.R. 6 as passed by the House and Senate. The sections are listed in numerical order as they appear in the House-passed version. Some of the most controversial sections are discussed in greater detail in a number of appendicies. Funding authorizations are shown in **Tables 2 and 3** at the end of the report.

The following analysts in the CRS Resources, Science, and Industry Division contributed to this report:

- Amy Abel, electric utilities;
- Anthony Andrews, nuclear security, DOE management;
- Robert Bamberger, energy security;
- Carl Behrens, nuclear nonproliferation;
- Claudia Copeland, Federal Water Pollution Control Act;
- Lynne Corn, ANWR;
- Bernard Gelb, gasoline industry;

- Carol Glover, Native American energy, general authorizations;
- Mark Holt, nuclear energy;
- Marc Humphries, federal energy leasing, coal;
- Larry Kumins, oil and gas;
- Salvatore Lazzari, taxes;
- Jim McCarthy, Clean Air Act, MTBE;
- Dan Morgan, science programs;
- Kyna Powers, hydropower;
- Fred Sissine, conservation and renewable energy;
- Mary Tiemann, underground storage tanks, drinking water;
- Brent Yacobucci, motor fuels, vehicles, hydrogen;
- Jeff Zinn, Coastal Zone Management Act.

Energy Efficiency

Federal Programs

Provision	House	Senate	Comments
Energy and Water Saving Measures in Congressional Buildings	*Sec. 101.* The Architect of the Capitol would be required to plan and implement an energy and water conservation strategy for congressional buildings that would be consistent with that required of other federal buildings. An annual report would be required. Up to $2 million would be authorized. Section 310 of the Legislative Branch Appropriations Act of 1999 called for the Architect of the Capitol (AOC) to develop an energy efficiency plan for congressional buildings.	*Sec. 101.* The Architect of the Capitol would be required to plan and implement an energy and water conservation strategy for congressional buildings that would be consistent with that required of other federal buildings. An annual report would be required.	
Energy Management Requirements	*Sec. 102.* The baseline for federal energy savings would be updated from FY1985 to FY2003 and a new goal of 20% reduction would be set for FY2015. At that time, DOE would be directed to assess progress and set a new goal for FY2025. Most of the other provisions for federal agencies in this Subtitle are administrative measures that would help agencies achieve the above-described goal.	*Sec. 102.* The baseline for federal energy savings would be updated from FY1985 to FY2004 and a new goal of 20% reduction would be set for FY2015. By the end of 2013, DOE would be directed to assess progress and set a new goal for FY2015 through FY2024. Standards for exclusion are set, which empower DOE to exempt, under certain conditions, buildings for which serve a national security function or for which achieving the target would be impracticable. Further, agencies are allowed to retain appropriations for energy expenses that are saved by the energy efficiency measures.	Section 202 of Executive Order 13123 uses FY1985 as the baseline for measuring federal building energy efficiency improvements and calls for a 35% reduction in energy use per gross square foot by FY2010.
Energy Use Measurement and Accountability	*Sec. 103.* Federal buildings would be required to be metered or sub-metered by late 2010, to help reduce energy costs and promote energy savings.	*Sec. 103.* Federal buildings would be required to be metered or sub-metered by late 2012, to help reduce energy costs and promote energy savings. Further, the Secretary of Energy is required to prepare guidelines for agency energy managers to facilitate implementation of metering.	
Procurement of Energy-Efficient Products	*Sec. 104.* Federal agencies would be required to purchase products certified as energy-efficient under the Energy Star program or energy-efficient products designated by the Federal Energy Management Program (FEMP)—provided the products are found to be "cost-effective" and "reasonably-available."	*Sec. 104.* Same provision.	Currently, Section 403 of Executive Order 13123 directs federal agencies to purchase life-cycle cost-effective Energy Star products.

Provision	House	Senate	Comments
Energy Savings Performance Contracts	*Sec. 105*. Would amend the National Energy Conservation Policy Act (42 U.S.C. 8287) by limiting all federal agencies combined to a total of 100 energy savings performance contracts and payments of no more than a total of $500,000,000. Under such contracts, energy saving measures are installed at government facilities by private-sector firms in return for a share of the resulting energy cost reductions. The Sunset and Reporting Provisions of section 801(c) of the Act would be repealed October 1, 2006, and any new contract after that date would be included in the contract limits.	*Sec. 105*. Would extend authority to enter into energy savings performance contracts from 2006 to 2016, and would consider any energy savings performance contract entered into under this section after October 1, 2003, and before the date of enactment of this Act, as extended by this amendment.	
Voluntary Commitments to Reduce Industrial Energy Intensity	*Sec. 107*. DOE would be authorized to form voluntary agreements with industry sectors or companies to reduce energy use per unit of production by an unspecified amount.	*Sec. 106*. DOE would be authorized to form voluntary agreements with industry sectors or companies to reduce energy use per unit of production by 2.5% annually from 2007 through 2016. Participants would be eligible for technical assistance and grants. An evaluation of energy-savings impacts would be required by mid-2012.	While there is no current statutory authority, industry energy efficiency programs have been in place, such as the former Climate Wise program at the Environmental Protection Agency (EPA).
Advanced Building Efficiency Testbed	*Sec. 108*. DOE would be required to create a program to develop, test, and demonstrate advanced federal and private building efficiency technologies.	No similar provision.	
Federal Building Performance Standards	*Sec. 109*. DOE would be directed to set revised energy efficiency standards for new federal buildings at a level 30% stricter than industry or international standards—provided the standards would be "life-cycle cost-effective."	*Sec. 107*. Same provision. Federal agency budget requests would be required to include an inventory of new buildings and to indicate whether they meet the standards.	Mandatory energy efficiency performance standards for federal buildings are currently set in Section 305(a) of P.L. 94-385 and implemented through 10 CFR Part 435.
Increased Use of Recovered Mineral Component in Federal Cement and Concrete Projects	No similar provision.	*Sec. 108*. DOT and other agencies that regularly procure or provide federal funds to procure material for cement or concrete projects would be directed to fully implement all procurement requirements and incentives that provide for incorporating recovered mineral components, such as blast furnace slag and coal combustion fly ash.	
Daylight Savings	*Sec. 111*. Daylight saving time would begin one month earlier (in March) and end one month later (in November). This is expected to reduce energy used for night-time electric lighting.	No similar provision.	Under current law (Uniform Time Act, P.L. 89-387, §3a), states can choose whether to participate. However, if a state chooses to

Provision	House	Senate	Comments
			participate, the duration of daylight savings is set by federal law.
Enhancing Energy Efficiency in Management of Federal Lands	*Sec. 112.* National parks, forests, and wildlife refuges would be required to employ energy efficiency measures in buildings and energy-efficient vehicles (including biodiesel and hybrid engines) "to the extent practicable."	No similar provision.	

Energy Assistance and State Programs

Provision	House	Senate	Comments
Low Income Home Energy Assistance Program (LIHEAP)	*Sec. 121.* Increased funding would be authorized for the LIHEAP grant program for FY2005 through FY2007. Department of Health and Human Services funding for LIHEAP was authorized through FY2003 in the Human Services Authorization Act of 1998. Also, states and their designees would be allowed to use renewable fuels (including biomass) to carry out the purposes of this section.	No similar provision.	
Weatherization Assistance	*Sec. 122.* Increased funding would be authorized for the DOE weatherization grant program for FY2006 through FY2008.	*Sec. 121.* Same provision.	Funding for the program was authorized through FY2003 under 42 U.S.C. 6872.
State Energy Programs	*Sec. 123.* New requirements would be set for state energy conservation goals and plans, including a 25% energy efficiency improvement in 2012 compared to 1990. Also, increased funding would be authorized for FY2006 through FY2008 for DOE state energy grant programs.	*Sec. 122.* Same provision.	
Energy-Efficient Appliance Rebate Programs	*Sec. 124.* DOE would be authorized to fund rebate programs in eligible states to support residential end-user purchases of Energy Star products.	*Sec. 123.* Same provision.	
Energy-Efficient Public Buildings	*Sec. 125.* A grant program would be created for energy-efficient renovation and construction of local government buildings that	*Sec. 124.* Same provision.	

Provision	House	Senate	Comments
	reduce energy use by 30% relative to standards (new buildings) or baseline (renovoations).		
Low Income Community Energy Efficiency Pilot Program	*Sec. 126.* A pilot energy-efficiency and renewable energy grant program would be created for local governments, private companies, community development corporations, and Native American economic development entities. Funding would be authorized from 2006 through 2008.	*Sec. 125.* Same provision. Funding would be authorized from 2006 through 2010.	
Low Income and Rural Community Energy Efficiency Pilot Program	Similar to *section 126* (above).	*Sec. 233.* Similar intent as House bill, but focused on "remote and rural communities." The Senate bill would establish a grant program for "increasing energy efficiency, siting or upgrading transmission and distribution lines serving rural areas; or providing or modernizing electric generation facilities that serve rural areas." Grant applications for development of renewable energy sources will be extended "preference." Would provide $20 million annually for FY2006-FY2012.	
State Technologies Advancement Collaborative	No similar provision.	*Sec. 126.* A cooperative program would be created that links DOE with the states. It would be focused on research, development, demonstration, and deployment of technologies in which there is a common federal and state energy efficiency, renewable energy, and fossil energy interest.	
State Building Energy Efficiency Codes Incentives	No similar provision.	*Sec. 127.* A grant program would be created for states that DOE determines have achieved a least a 90% rate of compliance with the most recent model building energy codes. Funds may be used to implement building energy codes and practices that exceed efficiency requirements of the most recent model building codes.	

Energy-Efficient Products

Provision	House	Senate	Comments
Energy Star Program	*Sec. 131.* DOE and EPA would be given statutory authority to carry out the Energy Star program, which identifies and promotes energy-efficient products and buildings.	*Sec. 131.* Same provision. Also, DOE would be directed to establish new qualifying energy efficiency levels for clothes washers and dish washers.	

Provision	House	Senate	Comments
HVAC Maintenance Consumer Education Program	*Sec. 132.* DOE would be required to implement a public education program for homeowners and small businesses that explained the energy-saving benefits of improved maintenance of heating, ventilating, and air conditioning equipment. Also, the Small Business Administration would be directed to assist small businesses in becoming more energy-efficient.	*Sec. 132.* Similar provision.	
Public Energy Education Program	No similar provision.	*Sec. 133.* DOE would be required to convene a conference with representatives from industry, education, professional societies, trade associations, and government agencies to design and establish an ongoing national public education program focused on energy efficiency and other topics. DOE would be required to provide guidance and technical assistance.	
Energy Efficiency Public Information Initiative	No similar provision.	*Sec. 134.* DOE would be required to conduct an advertising and public outreach program about the need to reduce energy use, the consumer benefits of reduced use, the relationship to jobs and economic growth, and cost-effective consumer measures to reduce energy use.	
Energy Conservation Standards for Additional Products	*Sec. 133.* DOE would be directed to issue a rule that determined whether efficiency standards should be set for standby mode in battery chargers and external power supplies. Also, energy efficiency standards would be set by statute for exit signs, traffic signals, torchieres (floor lamps), distribution transformers (electric utility equipment), unit heaters (fan-type heaters, usually portable), and medium base compact fluorescent lamps (CFLs). Further, DOE would be directed to issue a rule that prescribed efficiency standards for ceiling fans, vending machines, commercial refrigerators and freezers and refrigerator-freezers, and residential fans.	*Sec. 135.* Energy efficiency standards would be set by statute for all of the standards set by statute in the House bill plus dehumidifiers, pre-rinse spray valves, and mercury vapor (streetlight) lamp ballasts. Further, DOE would be directed to issue a rule that prescribed efficiency standards for ceiling fans, vending machines, and the standby power mode of battery chargers and external power supplies. Also, DOE would be authorized to set standards by rule for residential furnace fans.	
Energy Conservation Standards for Commercial Equipment	No similar provision.	*Sec. 136.* Energy efficiency standards would be set by statute for commercial air conditioning and heat pumps, commercial refrigerators and freezers, commercial clothes dryers, and commercial ice makers.	

Provision	House	Senate	Comments
Expedited Rulemaking	No similar provision.	*Sec. 137.* The Energy Policy and Conservation Act would be amended to make conforming changes related to the expedited rulemaking in Section 135.	
Energy Labeling	*Sec. 134.* The Federal Trade Commission (FTC) would be required to consider improvements in the effectiveness of energy labels for consumer products. Also, DOE or FTC would be directed to consider prescribing labeling requirements for many of the products listed in *section 133*.	*Sec. 138.* Similar to House provision. Requirements would apply to equipment listed in Senate *section 135*, except certain types of dehumidifiers would be exempt from labeling requirements.	FTC is currently required by Section 324(a) of the Energy Policy and Conservation Act (P.L. 94-163) to issue rules for energy efficiency labels on consumer products (42 U.S.C. 6294).
Preemption	*Sec. 135.* As of January 1, 2006, the energy efficiency standard for ceiling fans set out in Section 133 shall supersede all state and local standards for ceiling fans.	No similar provision.	
State Consumer Product Energy Efficiency Standards	*Sec. 136.* If the product efficiency standards set forth in Section 133 are not implemented within three years of this law's enactment, the federal preemption of state standards will expire.	*Sec. 135.* Existing state and local standards for products listed elsewhere under Section 135 would not be preempted until the federal standards go into effect.	
Intermittent Escalators	*Sec. 137.* With certain exceptions, all new escalators acquired for federal buildings will operate on an intermittent (on-demand) basis.	No similar provision.	
Energy Efficient Electric and Natural Gas Utilities Study	No similar provision.	*Sec. 139.* DOE would be required to conduct a study of state and regional policies that promote cost-effective programs to reduce energy use (including energy efficiency programs) that are conducted by utilities subject to state regulation and non-regulated utilities. A report to Congress would be required.	
Energy Efficiency Pilot Program	No similar provision.	*Sec. 140.* DOE would be required to establish a pilot program that provides financial assistance to at least three, but not more than seven, states to encourage energy efficiency and energy use reductions.	
Energy Efficiency Resource Program	No similar provision.	*Sec. 141.* State regulatory agencies would be required to consider implementing energy efficiency or other demand reduction programs.	

Provision	House	Senate	Comments
Fuel Efficient Engine Technology Program for Aircraft	No similar provision.	*Sec. 142.* DOE and the National Aeronautics and Space Administration (NASA) would be required to form a cooperative agreement for a multi-year program to develop 10% more fuel efficient turbine-based propulsion and power systems for aeronautical and industrial applications.	
Motor Vehicle Tires Supporting Maximum Fuel Efficiency	No similar provision.	*Sec. 143.* DOE would be required to conduct a national tire fuel efficiency program for passenger cars and light trucks. The program would include establishing fuel economy standards for tires, and the testing, labeling, and promotion of purchases of energy-efficient replacement tires.	

Public Housing

Provision	House	Senate	Comments
Capacity Building for Energy-Efficient, Affordable Housing	*Sec. 141.* Activities would be required that would provide energy-efficient, affordable housing and other residential measures under the HUD Demonstration Act.	No similar provision.	
Increase of CDBG Public Services Cap for Energy Conservation and Efficiency Activities	*Sec. 142.* The amount of community development block grant (CDBG) public services funding that could be used for energy efficiency would be increased to 25%.	No similar provision.	The current limit is 15% under Sec. 105(a)(8) of the Housing and Community Development Act of 1974.
FHA Mortgage Insurance Incentives for Energy-Efficient Housing	*Sec. 143.* Solar energy equipment can be eligible for up to 30% of the total amount of property value that can be covered by Federal Housing Administration mortgage insurance.	No similar provision.	The current limit is 20% under Section 203(b)(2) of the National Housing Act.
Public Housing Capital Fund	*Sec. 144.* The Public Housing Capital Fund would be modified to include certain energy- and water-use efficiency improvements.	*Sec. 161.* Same provision.	Under Section 9 of the United States Housing Act, the Capital Fund is available to public housing agencies to develop, finance, and modernize public housing developments and to make management improvements to these housing facilities. There is currently no provision for energy conservation projects that involve water-conserving plumbing fixtures and fittings.

Provision	House	Senate	Comments
Grants for Energy-Conserving Improvements for Assisted Housing	*Sec. 145.* The Department of Housing and Urban Development (HUD) would be directed to provide grants for certain energy and water efficiency improvements to multifamily housing projects.	No similar provision.	Section 2(a)(2) of the National Housing Act, as amended by Section 251(b)(1) of the National Energy Conservation Policy Act, empowers HUD to make grants for energy conservation projects in public housing, but it has no provision for energy- and water-conserving plumbing fixtures and fittings.
Energy-Efficient Appliances	*Sec. 147.* Public housing agencies would be required to purchase cost-effective Energy Star and FEMP-designated appliances and products.	*Sec. 162.* Same provision.	
Energy-Efficient Standards	*Sec. 148.* The energy efficiency standards and codes that the federal government encourages states to use would be changed from the codes set by the Council of American Building Officials to the 2003 International Energy Conservation Code.	*Sec. 163.* Same provision.	
Energy Strategy for HUD	*Sec. 149.* The Secretary of Housing and Urban Development would be required to implement an energy conservation strategy to reduce utility expenses through cost-effective energy-efficient design and construction of public and assisted housing.	*Sec. 164.* Same provision.	

Renewable Energy

General Provisions

Provision	House	Senate	Comments
Assessment of Renewable Energy Resources	*Sec. 201.* DOE would be required to report annually on the resource development potential of solar, wind, biomass, ocean (tidal, wave, current, and thermal), geothermal, and hydroelectric energy resources. DOE would be required to review available assessments and undertake new assessments as necessary, accounting	*Sec. 201.* Same provision.	

Provision	House	Senate	Comments
	for changes in market conditions, available technologies, and other relevant factors.		
Renewable Energy Production Incentive	*Sec. 202.* Eligibility for the existing incentive would be extended through 2025 and expanded to include electric cooperatives and tribal governments. Qualifying resources would be expanded to include landfill gas, livestock methane, and ocean (tidal, wave, current, and thermal) energy.	*Sec. 202.* Same provision.	Federal law currently provides a 1.5 cent/kwh incentive for power produced from wind and biomass by state and local governments and non-profit electrical cooperatives (Energy Policy Act, Sec. 1212 [42 U.S.C. 13317]). The incentive is funded by appropriations to DOE and was created to encourage public agencies, which are not eligible for tax incentives, in a fashion parallel to the renewable energy production tax credit for private sector businesses.
Federal Purchase Requirement	*Sec. 203.* Federal agencies would be required, to the extent "economically feasible and technically practicable," to purchase power produced from renewable sources. The collective total percentage of renewables use, as a share of total federal electric energy use, would start at 3% in FY2007, rise to 5% in FY2010, and then reach 7.5% in 2013 and all subsequent years. Renewable energy produced at a federal site, on federal lands, or on Indian lands would be eligible for double credit toward the purchase requirement. A report to Congress would be required every two years.	*Sec. 203.* Same provision.	
Insular Areas Energy Security	*Sec. 204.* This section includes congressional findings that electric power transmission and distribution lines in insular areas are not adequate to withstand hurricane and typhoon damage, and that an assessment is needed of energy production, consumption, infrastructure, reliance on imported energy, and indigenous sources of energy in insular areas. Would require the Secretary of the Interior, in consultation with the Secretary of Energy and the head of government of each insular area, to update insular area plans by 2007 to reflect these findings, and to seek to reduce energy imports by increasing energy	*Sec. 241 through Sec. 245.* Would require the Secretary of the Energy, in consultation with the Secretary of Interior to assess and report to Congress on projects with the greatest potential for reducing dependence on fossil fuels used to generate electricity, and to promote distributed energy, in the insular areas. DOE would be authorized to provide technical and financial assistance, on a matching basis with local utilities, for feasibility studies and the implementation of those projects the Secretary of Energy determines are feasible and appropriate for implementation. No local match required for assistance.	Federal law currently requires comprehensive energy plans for insular areas that describe the potential for renewable energy resources.

Provision	House	Senate	Comments
	conservation and energy efficiency and by attempting to maximize the use of indigenous resources. Annual appropriations would be authorized that would, in part, be used for matching grants (federal share maximum is 75%) for projects designed to protect electric power transmission distribution lines in one or more of the territories of the United States from damage caused by hurricanes and typhoons.		
RFG Opt-In	No comparable provision.	*Sec. 227.* Would allow Governors of 12 Northeastern states (the Ozone Transport Region) to petition EPA to require RFG use in *attainment* areas in their states. The Administrator would be required to do so unless he determines that there is insufficient capacity to produce RFG, in which case the commencement date of the requirement shall be delayed.	
Federal Enforcement of State Standards	No comparable provision.	*Sec. 228.* At the request of a state, would allow federal enforcement of state controls on fuels and fuel additives.	
Use of Photovoltaic Energy in Public Buildings	*Sec. 205.* The General Services Administration (GSA) would be authorized to encourage use of solar photovoltaic energy systems in new and existing buildings.	No similar provision.	
Federal Procurement of Biobased Products	*Sec. 206.* This provision amends the existing requirement that federal agencies give procurement preference to items composed of the highest percentage of biobased products practicable by adding a specific reference to degradable six-pack rings.	No similar provision, but there are other provisions on biobased products and biofuels in House *section 939*, and Senate *sections 938-944*.	7 U.S.C. 8201(c)(1) gives preference to procurement of items made with the highest percentage of biobased products. 42 U.S.C. 6914b-1 provides for use of naturally degradable material in plastic ring carriers to help reduce litter and to protect fish and wildlife.
Biomass Energy Findings	*Sec. 1701(a).* This provision would note that many communities near federal lands are at risk to wildfire and to insect infestation and disease.	No similar provision.	
Biomass Energy Definitions	*Sec. 1701(b).* This provision would provide definitions of biomass and other terms that would be employed in the establishment of programs described in Sections 1701(c) and 1701(d).	*Sec. 251.* This section is nearly identical to section 1701(b) except that it would add definitions of " eligible operation" and "green ton."	

Provision	House	Senate	Comments
Biomass Commercial Utilization Grant Program	*Sec. 1701(c).* This provision would create a grant program to subsidize biomass purchases for use in an energy production facility. The purpose would be to encourage the removal of slash, brush, pre-commercial thinning material and other non-merchantable forest biomass from federal lands and Indian reservations for biomass energy production.	*Sec. 252.* This section is nearly the same as 1701(c), except that it also gives priority to facilities in the highest risk areas.	
Improved Biomass Utilization Program	*Sec. 1701(d).* This provision would create a grant program to support proposal development for a project to be pursued under Section 1701(c). A list of priority conditions would also be set.	*Sec. 253.* This section is nearly the same as 1701(d), except that it adds to the list of priority conditions efficiency improvement, cleaner technology development, and reduction of hazardous fuel in the highest risk areas.	
Biomass Energy Authorizations	*Sec. 1701(e).* For the grant programs in both 1701(c) and 1701(d), this provision would authorize annual appropriations for FY2006 through FY2016.	*Sec. 252 (d).* For the proposal development grant program, this subsection would authorize annual appropriations for FY2006 through FY2010. - *Sec. 252 (e).* For the production subsidy grant program, this subsection would authorize annual appropriations for FY2006 through FY2010.	
Biomass Energy Report	*Sec. 1701(f).* This provision would require that the Secretary of Agriculture and Secretary of Interior jointly submit a report to Congress on the results of the two grant programs in Section 1701(c) and 1701(d). It would require that the report identify biomass type, estimate the hauling distance, and project economic impacts.	*Sec. 254.* This section would require a report that describes the interim results of the programs in *sections 252 and 253*.	
Renewable Energy Security	*Sec. 207.* For the DOE Weatherization grant program, Section 207(a) increases the limit on support for renewable energy equipment from $2,500 to $3,000 per dwelling unit. Also, Section 207(d) creates a consumer rebate for renewable energy equipment installed in a dwelling or small business. The maximum rebate is the lesser of 25% of equipment cost or $3,000.	No similar provision.	

Provision	House	Senate	Comments
Installation of Photovoltaic System	*Sec. 208.* Would authorize $20 million for the Administrator of GSA to proceed with the Sun Wall Design Project, the winning entry in a national design competition sponsored jointly by DOE and the National Renewable Energy Laboratory, to install a photovoltaic solar electric system on the headquarters building of DOE.	No similar provision.	
Sugar Cane Ethanol Pilot Program	*Sec. 209.* This provision authorizes a three-year demonstration program for the production of ethanol in Hawaii to parallel the existing program for corn to show that the process can be applicable to cane sugar and can be replicated on a larger scale once the sugar cane industry has located a site and constructed ethanol production facilities.	*Sec. 231.* Would establish a program to study the production of ethanol from cane sugar, sugarcane, and sugarcane byproducts. The program would be limited to projects in Florida, Louisiana, Texas, and Hawaii. A total of $36 million would be authorized.	
Renewable Portfolio Standard	No similar provision.	*Sec. 291.* This provision would require electric utilities that have service at the retail level to obtain a percentage of base generation from new or existing renewable energy sources. Specifically, it would require utilities to obtain 10% of their generation from renewable energy by 2020. Utilities would be able to meet this renewable energy portfolio (RPS) standard by self generating, purchasing renewable energy from another utility, or by purchasing tradable renewable credits from DOE.	

Hydroelectric

Provision	House	Senate	Comments
Alternative Conditions and Fishways	Sec. 231. This provision in H.R. 6 would allow interested parties to propose alternative license conditions, and would require federal agencies to consider alternatives proposed by license applicants. It would also require an agency to accept an applicant's	Sec. 281. This provision in H.R. 6 would allow license applicants and parties to the license proceeding to propose alternative license conditions, and would require federal agencies to consider these alternatives. It would also require an agency to accept	Under the Federal Power Act (FPA, 16 U.S.C. 797 et. seq.) the Federal Energy Regulatory Commission has primary responsibility for balancing multiple water uses and evaluating hydropower relicensing applications. However, the FPA also creates a role in the licensing

Provision	House	Senate	Comments
	proposed alternative if the agency found that the alternative (1) provides for the adequate protection and utilization of the federal reservation, or is no less protective of the fish resource than the fishway initially prescribed, and (2) costs less to implement, and/or will improve operation of the project for electricity production.	a proposed alternative if the agency (1) found that the alternative provides for the adequate protection and utilization of the federal reservation, or is no less protective of the fish resource than the fishway initially prescribed, and (2) concurs with the license applicant's judgement that the alternative costs less to implement, and/or will improve operation of the project for electricity production.	process for federal agencies that are responsible for managing fisheries or federal reservations (e.g. national forests, etc.). Specifically, sections 4(e) and 18 of the FPA give certain federal agencies the authority to attach conditions to FERC licenses. For example, federal agencies may require applicants to build passageways through which fish can travel around the dam, schedule periodic water releases for recreation, ensure minimum flows of water for fish migration, control water release rates to reduce erosion, or limit reservoir fluctuations to protect the reservoir's shoreline habitat. Once an agency issues such conditions, FERC must include them in its license. While these conditions often generate environmental or recreational benefits, they may also require construction expenditures and may increase costs by reducing operational flexibility.
	When issuing conditions, H.R. 6 would require agencies to provide FERC with a written statement demonstrating that the relevant Secretary gave "equal consideration" to the effects of the conditions on factors such as energy supply, flood control, navigation, water supply, and air quality.	Same as House bill.	This equal consideration clause is a topic of disagreement. Opponents of the provision are concerned that it would hamper agencies' ability to protect the resources under their jurisdiction; proponents argue that conditioning agencies, like FERC, should be required to balance competing water uses.
	H.R. 6 would require FERC's Dispute Resolution Service to issue non-binding advisories.	Same as House bill.	FERC's Dispute Resolution Service is a facilitative entity that is not currently established to make recommendations.
Hydroelectric Production Incentives	*Sec. 241.* The Secretary of Energy would make incentive payments to non-federal owners or operators of hydroelectric facilities for power that is first produced within 10 years of the date of enactment by generating equipment added to existing facilities. Payments of 1.8 cents per kilowatt-hour (kWh), up to a total of $750,000/year, may be made for up to 10 years from the first year after the facility begins operating.	No similar provision.	

Provision	House	Senate	Comments
Hydroelectric Efficiency Improvement	*Sec. 242.* The Secretary of Energy would make incentive payments to the owners or operators of hydroelectric facilities who make capital improvements on existing facilities that improve efficiency by at least 3%. Payments would not exceed 10% of the improvement cost and would not exceed $750,000 at any single facility.	No similar provision.	
Small Hydroelectric Power Projects	*Sec. 243.* This provision would amend the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2078), to change the date on or before which a dam must be constructed to qualify as an existing dam, from April 20, 1977, to March 4, 2003.	No similar provision.	
Alaska State jurisdiction over small hydroelectric projects	No similar provision.	*Sec. 282.* Under this provision the State of Alaska could decide not to issue conditions recommended by certain state and federal resource agencies under 16 U.S.C. §823c (a)(3)(c).	16 U.S.C. §823c allows the State of Alaska to regulate Alaska's small hydroelectric projects—in lieu of the Federal Energy Regulatory Commission—if it meets certain conditions. For example, §(a)(3)(c) requires that the State of Alaska establish "conditions for the protection, mitigation, and enhancement of fish and wildlife" based on recommendations received from certain federal agencies.
Flint Creek hydroelectric project	No similar provision.	*Sec. 283.* This provision would allow the Federal Energy Regulatory Commission to extend, by 3 years, a preliminary licensing permit for Flint Creek Hydroelectric Project.	

Oil and Gas

Petroleum Reserve and Home Heating Oil

Provision	House	Senate	Comments
Permanent Authority to Operate the Strategic Petroleum Reserve	*Sec. 301*. The House bill would permanently authorize the Strategic Petroleum Reserve (SPR) program. The authorization also permits U.S. participation in emergency activities of the International Energy Agency (IEA) without risking violation of antitrust law and regulation. The bill would encourage the Secretary of Energy to fill the SPR to its authorized size of 1 billion barrels without "incurring excessive cost" or putting upward price pressure on petroleum products such as gasoline and diesel fuel, or home heating oil.	*Sec. 301*. The language in the Senate bill is identical in most respects. However, the Senate bill would require the Secretary to issue for public comment a set of procedures for acquiring oil for the SPR that would take into account the current future price and supply of crude and petroleum products, balanced with national security considerations. The procedures would also establish a process for review of requests to delay scheduled deliveries of oil to the SPR. These procedures would be required to be in place 180 days after enactment.	Congress authorized the Strategic Petroleum Reserve (SPR) in the Energy Policy and Conservation Act (EPCA, P.L. 94-163). In 2000, Congress also authorized establishment of a Northeast Heating Oil Reserve (NHOR). The authorities governing the SPR and NHOR are currently authorized through FY2008 by P.L. 108-7.
National Oilheat Research Alliance	*Sec. 302*. Extends authorization of the National Oilheat Research Alliance (NORA) to 2010. NORA was established by the Energy Policy Act of 2000 (P.L. 106-469), and assesses a fee of $.002 per gallon on home heating oil sold by retail distributors. The proceeds are dedicated among other purposes to research on improving the efficiency of furnaces and boilers.	*Sec. 302*. Identical to the House provision.	
Site Selection	*Sec. 303*. Tthe Secretary of Energy would be required, within one year of the enactment of the legislation, to select sites—from among those that have been previously studied—for expansion of the SPR to its fully authorized volume of one billion barrels.	No comparable provision.	
Suspension of Strategic Petroleum Reserve Deliveries	*Sec. 304*. Would permit accepting deliveries of royalty-in-kind (RIK) oil to the SPR only when crude oil prices were below $40/barrel.	No explicitly comparable provision. However, see Senate Sec. 301 above for procedures governing additional fill of the SPR consistent with oil price and supply.	Producers of offshore leases in the Gulf of Mexico pay a royalty to the U.S. Treasury based upon production at their sites. Since 1999, most new fill of the SPR has been accomplished by the acceptance of royalty-in-kind (RIK) oil from these producers in lieu of cash paid to the Treasury. It is not known whether the

Provision	House	Senate	Comments
			Administration plans to continue RIK fill after current contracts end during the summer of 2005.
Small Business and Agricultural Producer Energy Emergency Disaster Loan Program.	No comparable provision.	*Sec. 303*. Would establish a loan program to provide relief to qualifying small businesses that have been jeopardized by price increases since January 1, 2005 in the cost of petroleum fuels. Loans may not exceed $1.5 million unless the business is a major regional employer or if the limit is otherwise waived. Loans would be extended for the purpose of displacing petroleum consumption through the use of alternative or renewable fuels. Would also amend the Consolidated Farm and Rural Development Act (7 U.S.C. 1961(a)) to include agricultural producers under the program.	

Production Incentives

Provision	House	Senate	Comments
Liquefied Natural Gas	*Sec. 320.* This would expand the scope of the Natural Gas Act (15 U.S.C. 717b) to include importing and exporting natural gas as well as the construction of liquefaction and re-gasification facilities. Building and operating such facilities would require authorization by the Federal Energy Regulatory Commission. FERC would be designated as lead agency for the purpose of coordinating all applicable federal authorizations, and for coordinating compliance with the National Environmental Policy Act of 1969 (42 U.S.C.4312). FERC would set a schedule ensuring expeditious administrative proceedings, and compile the consolidated record of all state and federal proceedings.	*Sec. 381.* This would amend section 3 of the Natural Gas Act, granting FERC exclusive authority to approve the siting, construction, and operation of import or export facilities. FERC would be prohibited from denying such a project because it is for the benefit of the project sponsor. Nor would it be permitted to condition authorization on allowing use by another party, regulation of rates or other conditions of service, or the requirement that rates or tariffs be filed with FERC. - This provision specifies that it would not affect the rights of states under the Coastal Zone Management Act of 1972 (1 4 U.S.C. 1451), the Clean Water Act (42 U.S.C. 7401), or the Federal Water Pollution Control Act (33 U.S.C.1251).	

Provision	House	Senate	Comments
		- Measures adding customers which have the effect of degrading service for existing customers or causing subsidization of new customers rates by old customers would be prohibited.	
Hydraulic Fracturing	*Sec. 327.* Would amend the Safe Drinking Water Act (SDWA), Section 1421(d), to specify that the definition of "underground injection" excludes the injection of fluids or propping agents used in hydraulic fracturing operations related to oil or gas production activities. Would remove EPA's current authority to regulate the underground injection of fluids used in hydraulic fracturing, as needed to protect drinking water.	No similar provision.	The SDWA required EPA to promulgate regulations for state underground injection control (UIC) programs that included minimum requirements for programs to prevent underground injection that endangers sources of drinking water. (§1421(b)(2)). Before 1997, EPA had not considered regulating hydraulic fracturing for oil and gas development, because it did not view this well-production process as an activity subject to regulation under SDWA's UIC program. The House provision responds to a 1997 court ruling that directed EPA to regulate hydraulic fracturing of coalbed methane (CBM) wells as underground injection. **(See Appendix A for more information)**
Oil and Gas Exploration and Production Defined	*Sec. 328.* Would amend Section 502 of the Clean Water Act (CWA) (the definitions provision) to give a permanent exemption from CWA stormwater runoff rules for the construction of exploration and production facilities by oil and gas companies and the roads that service those sites.	No similar provision.	Currently under the CWA, the *operation* of facilities involved in oil and gas exploration, production, processing, transmission, or treatment generally is exempt from stormwater runoff regulations, but the *construction* of these facilities is not. The House amendment would modify the Act to specifically include construction activities in the types of oil and gas facilities that are covered by the law's statutory exemption from stormwater rules. **(See Appendix B for more information)**
Outer Continental Shelf Provisions	*Sec. 329.* For applications to build deepwater ports, the Secretary of Transportation could use environmental impact statements or other studies prepared by other federal agencies instead of conducting separate studies. Information from state and local governments and private-sector sources could also be used.	No similar provision	

Provision	House	Senate	Comments
Appeals Relating to Pipeline Construction or Offshore Mineral Development Projects	*Sec. 330.* Appeals of decisions under the Coastal Zone Management Act on natural gas pipelines and offshore energy projects would be based exclusively on the record compiled by FERC or the relevant permitting agency. It would be the sense of Congress that appeals relating to natural gas pipeline construction would be coordinated within FERC's established timeframes under sections 3 and 7 of the Natural Gas Act (15 U.S.C. 717 b 717 (f).	No similar provision.	
New Natural Gas Storage Facilities	No comparable provision.	*Sec. 382.* Would authorize FERC to allow provision of gas storage facilities at market based rates for facilities place in service after date of enactment.	
Process Coordination; Hearings; Rules of Procedure	No comparable provision.	*Sec. 383.* Strikes Sec. 15 of the Natural Gas Act and inserts a new Sec. 15, which defines Federal authorization as any required under federal law, including certificates of convenience and necessity. - FERC would be designated lead agency for NEPA compliance, preparing a single environmental review document and setting a schedule for other Federal authorizations. In situations where an applicant or a state takes issue with this process, an appeal to the President would be provided for. The President would be required to issue or deny an authorization within 90 days.	
Natural Gas Market Reform	*Sec. 332.* Would modify the Commodity Exchange Act (CEA, 7 U.S.C. 13), banning "knowingly false or knowingly misleading or knowingly inaccurate reports." It also would increase the penalties for false reporting.	*Sec. 384.* Penalties. Modifies Natural Gas Act and Natural Gas Policy Act penalties for violating FERC Orders. Would raise the prison term limit from 2 to 5 years, and the fine ceiling from $500 per violation to $50,000 for each day the violation takes place. Violations of emergency orders would be subject to fines up to $1 million per day. - Civil penalties for violating an order under the NGA would be subject to a new $1 million cap.	

Provision	House	Senate	Comments
		Sec. 385. Market Manipulation. Would amend the NGA to prohibit using deceptive practices to influence price determination or reporting in contravention of FERC regulations protecting consumers. *Sec. 389.* Prohibition of Trading and Serving By Certain Individuals. Would amend the NGA to facilitate banning of individuals convicting of violating FERC orders from being officers of natural gas companies and prohibiting them from trading natural gas.	
Natural Gas Market Transparency	*Sec. 333.* Would direct FERC to issue rules calling for the timely reporting of natural gas prices and availability and to evaluate the data for accuracy. The language specifies that FERC not impinge on the role of commercial publishers of natural gas prices.	*Sec. 386.* Market Transparency. Anticipates that FERC could establish an electronic bulletin board for making market information available to the public. Would provide for cooperation with the Commodity Futures Trading Commission. FERC would be prohibited from competing with private market information providers.	
Federal State Liquified Natural Gas Forums.	No comparable provision.	*Sec. 388.* Within one year of enactment, the Secretary of Energy—in conjunction with FERC, the Secretaries of Homeland Security, Transportation and coastal state Governors—would be tasked with convening a series of 3 public forums to take place in locations where LNG facilities might be sited.	
Oil, Gas, and Mineral Industry Workers	*Sec. 334.* Within a year after enactment, the secretaries of Energy, Labor, and the Interior must submit a report to Congress with recommendations on meeting future labor requirements for the domestic oil, gas, and mining industries.		
No Oil Producing and Exporting Cartels.	No comparable provision.	*Sec. 328.* Would make it a violation of the Sherman Act for foreign states or their agents, by cartel or cooperative action, to limit the production or distribution of fossil fuels, act collectively to set or maintain prices, or restrain trade in markets for these fuels. The doctrine of sovereign immunity from U.S.	

Provision	House	Senate	Comments
		jurisprudence would no longer apply in the event of action being brought against violators.	

Access to Federal Land

Provision	House	Senate	Comments
Leasing and Permitting Processes	*Sec. 344.* The Secretaries of the Interior and Agriculture would be required to sign a memorandum of understanding (MOU) on the "timely processing" of oil and gas lease applications, surface use plans and drilling applications, the elimination of duplication, and ensuring consistency in applying lease stipulations.	No similar provision	The federal oil and gas leasing program is governed under the Mineral Leasing Act of 1920, as amended (30 U.S.C. 181 et. seq.). Bureau of Land Management (BLM) procedures for an application for a permit to drill (APD) are contained in 43 CFR 3162.3-1. The APD is posted for 30 days. Within 5 working days after the 30-day period, the BLM consults with surface-managing agencies whose consent is also required, then notifies the applicant of the results. The BLM is also required to process the application within the 35-day period.
	Sec. 346. Compliance with Executive Order No. 13211 (42 U.S.C. 12301 note), requiring energy impact studies, would be required before taking action on regulations having an effect on domestic energy supply.	No similar provision	
Encouraging Prohibition of Drilling in the Great Lakes	*Sec. 355.* Congress would urge that no federal or state permits be issued for oil and gas drilling in or under the Great Lakes.	No similar provision	
Federal Coalbed Methane Regulation	*Sec. 358.* States on the list of "affected states" under section 1339(b) of the Energy Policy Act of 1992 (42 U.S.C. 13368(b)) would be removed if they took specified actions within three years after enactment of H.R. 6 or had previously taken action under section 1339(b).	*Sec. 391.* Same provision.	The list of "affected states" established under the Energy Policy Act of 1992 (42 U.S.C. 13368 (b)) includes: West Virginia, Pennsylvania, Kentucky, Ohio, Tennessee, Indiana, and Illinois. These states are on the list as a result of coalbed methane (CBM) ownership disputes, impediments to development, lack of a regulatory framework to encourage CBM development in the state, and no current extensive development of CBM. A state may be removed from the list through a petitioning process initiated by the governor of that state.

Refining Revitalization

Provision	House	Senate	Comments
Short Title	*Sec. 371*. This subtitle is designated as the "United States Refinery Revitalization Act of 2005."	No provision.	Closure of refineries since 1981 has resulted in the shuttering of nearly 500,000 barrels per day of capacity. While the number of operating facilities has fallen from 324 to 149, the total amount of capacity has risen, the result of expansion of existing plants. But the investment climate for expansion of old plants and construction of new remains clouded, in part due to regulatory uncertainty at the federal, state, and local levels. The findings in the House bill make note of the planned Yuma, AZ, refinery, which just received its federal air quality permit after five years under the current regulatory process.
Findings	*Sec. 372*. Based on the finding that fuel demand exceeds the production capacity of domestic refineries, it would be in the national interest to increase capacity to refine fuels within the United States. The findings in this section also note that no new refinery has been built in the country since 1976, and there has been a reduction in the number of operating facilities. It also notes that gasoline demand is expected to increase 45% between 2005 and 2025.	No provision.	
Purpose	*Sec. 373*. The Act's purpose would be to provide an accelerated review and approval process for idled refineries, and to lend legal and technical support to states needing help to meet such permit demands.	No provision.	
Refinery Revitalization Zones	*Sec. 374*. Refinery Revitalization Zones would be designated, and the Secretary of Energy would identify areas (within 90 days after enactment) that have experienced mass layoffs in manufacturing, contain an idle refinery, and have an unemployment rate that exceeds the national average by 10%.	No provision.	
Memorandum of Understanding	*Sec. 375*. This section calls for a memorandum of understanding between the Secretary of Energy and the EPA Administrator that would designate appropriate agency officials and staff to implement the purposes of the Act and administer any regulations issued thereunder. State Governors and Indian Tribe representatives could enter into this MOU.	No provision.	
State Environmental Permitting Assistance	*Sec. 376*. Once a qualifying state enters into the MOU, this section calls on the Secretary of Energy to delegate agency staff to provide assistance to the state. The EPA Administrator would be similarly charged, and specifically directed to provide expertise regarding the laws the agency administers as they relate to refineries.	No provision.	

Provision	House	Senate	Comments
Coordination and Expeditious Review of Permitting Process	*Sec. 377.* DOE would be designated lead agency. Upon written request of an applicant, the Department would coordinate all applicable authorizations and environmental reviews, including those at the state and local level. It would be required to set a prompt and binding schedule for federal reviews and authorizations, such that the whole federal process would be completed within six months. The Department would maintain a complete consolidated record of the proceedings, and act as the arbiter in the case of appeals. Decisions on appeals would be required within 60 days. The Secretary would establish a 60-day pre-application process to help establish likelihood of approval and identify potential issues. In its lead agency role, the Department would coordinate all federal actions for NEPA compliance, as well as consolidation of the impact statement into one document covering all environmental impacts.	No provision.	
Compliance With All Environmental Regulations Required	*Sec. 378.* This section calls for the compliance with all applicable laws and regulations.	No provision.	
Definitions	*Sec. 379.* This section includes definitions for a number of significant items, including: (1) Federal authorizations means those required under the Clean Air Act, the Federal Water Pollution Control Act, the Safe Drinking Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the Solid Waste Disposal Act, the National Historic Preservation Act, and the National Environmental Policy Act of 1969. (2) An idle refinery is real property used as a refinery since December 31, 1979, and not operational before April 1, 2005. (3) A refinery means any facility designed and operated to store or ship oil, as well as to operate as a refinery or a refinery component. This includes places where fuel blending took place. (4) A qualifying state is a state or Indian tribe which has entered into a MOU with the Secretary of Energy, and has a refining infrastructure coordination office.	No provision.	

Coal

Clean Coal Power Initiative

Provision	House	Senate	Comments
Authorization of Appropriations	*Sec. 401*. Funding for the Clean Coal Power Initiative (CCPI) would be authorized for $200 million for each year from FY2006-FY2014.	*Sec. 401*. Funding for CCPI would be authorized for $200 million for each year from FY2006-FY2012. Specific reductions in mercury would be established.	
Project Criteria	*Sec. 402*. The technical criteria would be established for coal-based gasification and other projects. The federal share of financing for each clean coal project would not exceed 50%.	*Sec. 402*. Similar provision, except slightly different technical criteria by the year 2020 for coal gasification projects.	
Report	*Sec. 403*. A report on the projects' status and technical milestones would be submitted after the first year and every two years (through 2014) by the Secretary of Energy to various congressional committees.	*Sec. 403*. Same provision, except a report will be filed every two years through 2012.	
Clean Coal Centers of Excellence	*Sec. 404*. Would include grants to universities to establish Centers of Excellence for energy systems of the future.	*Sec. 404*. Same provision	
Integrated Coal/Renewable Energy System	No similar provision.	*Sec. 405*. Integrated Coal/ Renewable Energy System. The Secretary would provide loan guarantees for an integrated gasification combined cycle facility of at least 200 MW that would be combined with renewable energy sources, sequester carbon dioxide emissions, and be a source of hydrogen for near-site fuel cell demonstrations. The federal share would not exceed 50%.	

Clean Power Projects

Provision	House	Senate	Comments
Clean Coal Technology Loan	*Sec. 411*. The Secretary of Energy would be authorized to provide a $125 million loan to an experimental clean coal power plant in Healy, Alaska.	*Sec. 406*. Similar provision, except the maximum loan amount would be $80 million.	

Provision	House	Senate	Comments
Coal Gasification	*Sec. 412.* Loan guarantees would be authorized for a power plant of at least 400 MW capacity using integrated combined-cycle (IGCC) technology in a deregulated market and receiving no ratepayer subsidy.	*Sec. 407*. Similar provision except that it specifies the coal would come from the western United States, the facility would be located in a western state and would not be eligible for loan guarantees.	
Petroleum Coke Gasification	*Sec. 414.* Loan guarantees would be available for at least five petro-coke gasification polygeneration projects, involving co-production of electricity and fuels.	No similar provision	
Electron Scrubbing Demonstration	*Sec. 416.* The Secretary of Energy would be directed to use $5 million of appropriated funds to begin a project managed by the DOE Chicago Operations Office to demonstrate high-energy electron scrubbing technology for high-sulfur coal emissions.	No similar provision	

Coal and Related Programs

Provision	House	Senate	Comments
Clean Air Coal Program/ Coal and Related Technologies	*Sec. 441*. This section would amend the Energy Policy Act of 1992 with the addition of a clean air coal program to promote increased use of coal, acceptance of new clean coal technologies, and advance deployment of pollution control equipment to meet the Clean Air Act (42 U.S.C. 7402 et seq.) **(See Appendix C for more information.)**	*Sec. 956*. Similar provision.	

Indian Energy

Provision	House	Senate	Comments
Short Title	*Sec. 501*. This title would be cited as the "Indian Tribal Energy Development and Self-Determination Act of 2005."	*Sec. 501*. Similar provision.	
Office of Indian Energy Policy and Programs	*Sec. 502.* Title II of the Department of Energy Organization Act (42 U.S.C. 7131 et. seq.) would be amended to create the Office of Indian Energy Policy and Programs at the Department of Energy.	*Sec. 502*. Similar provision.	

Provision	House	Senate	Comments
Indian Energy	*Sec. 503.* Title 26 the Energy Policy Act of 1992 (25 U.S.C. 3501) would be replaced by this section, which outlines procedures whereby Indian tribes would be able to develop and manage the energy resources located on, and rights-of-way through, tribal land. Within a year of enactment of the bill, the Department of the Interior (DOI) would issue regulations on the requirements for approval of tribal energy resource agreements. Under their own tribal energy resource agreements as approved by DOI, Indian tribes would be able to enter into leases or business agreements for energy development and grant rights-of-way over tribal land for pipelines or electric lines.	*Sec. 503.* Similar provision.	Assistance for tribal energy development would be provided through DOI by grants and low-interest loans and through DOE by grants and loan guarantees. Federal agencies could give preference to Indian energy when purchasing energy products and byproducts. DOI would be required to undertake a review and make recommendations regarding tribal opportunities under the Indian Mineral Development Act of 1982 (25 U.S.C. 2101 et. seq.). The Bonneville Power Administration and Western Area Power Administration would be authorized to assist in developing distribution systems that provide power to Indian tribes using the federal transmission system.
Consultation with Indian Tribes	*Sec. 504.* The Secretaries of Energy and of the Interior would be required to consult with Indian tribes in carrying out this title.	*Sec. 506.* Similar provision.	
Four Corners Transmission Line Project	*Sec. 505.* The Dine Power Authority, an enterprise of the Navajo nation, would be eligible to receive grants and other assistance to develop a transmission line from the Four Corners Area to southern Nevada, including related generation facilities.	*Sec. 504.* Similar provision.	
Energy Efficiency in Federally Assisted Housing.	No provision.	*Sec. 505.* Would amend the Native American Housing and Self-Determination Act of 1996 to include as a goal "greater energy efficiency."	

Nuclear Matters

Price-Anderson Act Amendments

Provision	House	Senate	Comments
Short Title	*Sec. 601.* "Price-Anderson Amendments Act of 2005."	Sec. 601. Same.	The Price-Anderson Act, which addresses liability for damages to the general public from nuclear incidents, would be extended through 2025 by both bills. The Price-Anderson liability system was up for reauthorization on August 1, 2002, and was extended for commercial nuclear reactors through December 31, 2003, by the FY2003 consolidated appropriations resolution (P.L. 108-7). Even without further extension, existing reactors will continue to operate under the current Price-Anderson liability system, but any new reactors would not be covered. Price-Anderson coverage for DOE nuclear contractors was extended through December 31, 2004, by the National Defense Authorization Act for FY2003 (P.L. 107-314). A further two-year extension for DOE contractors was approved by Congress on October 9, 2004, as part of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (P.L. 108-375). **(See Appendix D for more information.)**
Extension of Indemnification Authority	*Sec. 602.* Price-Anderson liability coverage for commercial reactors, DOE contractors, and non-profit educational institutions would be extended through December 31, 2025.	Sec. 602. Same.	
Maximum Assessment	*Sec. 603.* The total retrospective premium for each reactor would be set at the current level of $95.8 million and the limit on per-reactor annual payments raised to $15 million. Both levels would be adjusted for inflation every five years, beginning August 20, 2003.	Sec. 603. Same.	
Department of Energy Liability Limit	*Sec. 604.* The liability limit for DOE contractors would be set at $10 billion per incident, to be adjusted for inflation every five years under Sec. 607.	Sec. 604. Same.	
Incidents Outside the United States	*Sec. 605.* The liability limit and maximum indemnification for DOE contractors for nuclear incidents outside the United States would be raised from $100 million to $500 million.	Sec. 605. Same.	
Reports	*Sec. 606.* NRC and DOE would have to report to Congress by the end of 2021 on the need for further Price-Anderson extensions and modifications.	Sec. 606. Same.	
Inflation Adjustment	*Sec. 607.* The liability limit for DOE nuclear contractors would be adjusted for inflation every five years after July 1, 2003.	Sec. 607. Same.	
Treatment of Modular Reactors	*Sec. 608.* For the purpose of applying the limits on retrospective premiums after a nuclear incident, a nuclear plant consisting of multiple small reactors (100-300 megawatts per reactor, up to a total of 1,300 megawatts at the plant site) would be considered a single reactor.	Sec. 608. Same.	For example, a power plant with six 120-megawatt modular reactors would be liable for retrospective premiums of up to $95.8 million, rather than $574.8 million.

Provision	House	Senate	Comments
Applicability	*Sec. 609.* None of the increased liability limits would apply to nuclear incidents taking place before the amendments are enacted.	Sec. 609. Same.	
Prohibition on U.S. Liability for Certain Foreign Incidents	*Sec. 610.* Price-Anderson indemnification would be prohibited for contracts related to nuclear facilities in countries found to sponsor terrorism. The prohibition would not apply to missions necessary for nuclear safety or nonproliferation.	No provision.	
Civil Penalties	*Sec. 611.* For future contracts, the bill would eliminate the civil penalty exemption for nuclear safety violations by the seven non-profit contractors listed in current law. DOE's authority to automatically remit penalties imposed on all non-profit educational institutions serving as contractors would also be repealed. However, the bill would limit the civil penalties against a non-profit contractor to the amount of management fees received under that contract within a one-year period.	*Sec. 610.* Substantially the same.	
Financial Accountability	*Sec. 612.* The federal government could sue DOE contractors to recover at least some of the compensation that the government had paid for any accident caused by intentional DOE contractor management misconduct. Such cost recovery would be limited to the amount of the contractor's profit under the contract involved, and no recovery would be allowed from nonprofit contractors.	No provision.	

General Nuclear Matters

Provision	House	Senate	Comments
Commercial Reactor License Period	*Sec. 621.* The initial 40-year period for a commercial nuclear reactor license would begin when NRC authorized the reactor to commence operation after construction had been completed.	No provision.	Currently, under Atomic Energy Act Section 185 b. (added by the Energy Policy Act of 1992, P.L. 102-486), the 40-year initial license period may begin when a "combined construction and operating license" is issued several years before the reactor is to start operating. Before Section 185 was added in 1992, reactor operating licenses had been issued only after construction was complete, but any future licenses are expected to use the combined license option.

Provision	House	Senate	Comments
NRC Training and Fellowship Program	*Sec. 622.* Funding of $1 million per year would be authorized from FY2005-FY2009 for NRC to conduct a training and fellowship program to develop critical nuclear safety regulatory skills.	No provision.	
Cost Recovery From Government Agencies	*Sec. 623.* NRC would be authorized to charge cost-based fees for all services rendered to other federal agencies.	No provision.	Such authority is limited under current law (Atomic Energy Act, Section 161 w.).
Elimination of Pension Offset for Key NRC Personnel	*Sec. 624.* When NRC has a critical need for the skills of a retired employee, NRC could hire the retiree as a contractor and exempt him or her from the annuity reductions that would otherwise apply.	No provision.	
Antitrust Review Suspension	*Sec. 625.* NRC would no longer have to submit nuclear reactor license applications to the Attorney General for antitrust reviews, as currently required by Atomic Energy Act Section 105 c.	No provision.	
Decommissioning Fund Protection	*Sec. 626.* NRC would be explicitly authorized to issue regulations ensuring that funds collected to decommission nuclear power plants would not be used for other purposes.	No provision.	This provision is particularly aimed at cases in which an original nuclear power plant owner has sold the plant but retained control over decommissioning funds collected before the ownership transfer.
Limitation on DOE Legal Fee Reimbursement	*Sec. 627.* Except as required by existing contracts, DOE would be prohibited from reimbursing its contractors for legal expenses incurred in defending against "whistleblower" complaints that are ultimately upheld.	No provision.	
Feasibility Study for Commercial Reactors at DOE Sites	*Sec. 629.* The Secretary of Energy would be required to submit a study to Congress on the feasibility of developing commercial nuclear power plants at existing DOE sites.	No provision.	
Government Uranium Sales	*Sec. 630.* With certain exceptions, DOE uranium sales would be restricted to 3 million pounds per year from FY2005-FY2009, 5 million pounds per year in FY2010-	No provision.	

Provision	House	Senate	Comments
	FY2011, 7 million pounds per year in FY2012, and 10 million pounds per year thereafter. DOE must report to Congress within three years on the impact of such sales on the domestic uranium industry.		
Uranium Mining Research and Development	*Sec. 631.* Funding of $10 million per year would be authorized during FY2006-FY2008 for a cost-shared research and development program by DOE and domestic uranium producers on in-situ leaching mining technologies and related environmental restoration technologies, except that "no activities funded under this section may be carried out in the State of New Mexico."	No provision.	
Whistleblower Protection	*Sec. 632.* Existing whistleblower protections for employees of nuclear power plants and other NRC licensees and employees of DOE contractors would be extended to employees of NRC contractors. An employee whose whistleblower retaliation complaint did not receive a final decision by the Secretary of Labor within 540 days could take the case to federal court.	*Sec. 625.* Whistleblower protections would be extended to employees of DOE and all DOE contractors and subcontractors. An employee could take a whistleblower complaint to federal court if the Secretary of Labor had not made a final decision within 180 days.	
Uranium Exports for Medical Isotope Production	*Sec. 633.* Highly enriched uranium (HEU) could be exported to Canada, Belgium, France, Germany, and the Netherlands for production of medical isotopes in nuclear reactors. Those countries would be exempt from existing requirements (under Section 134 of the Atomic Energy Act) that they agree to switch to low-enriched uranium (LEU) as soon as possible and that LEU fuel for their reactors be under active development. Instead, those countries would have to agree to convert to suitable LEU fuel when it became available. NRC would have to review current security requirements for HEU used for medical isotope production and impose additional requirements if necessary. The National Academy of Sciences (NAS) would study the potential availability and cost of medical isotopes produced in LEU reactors; that study would be used by DOE to help determine whether U.S. medical isotope demand could be reliably and economically met with production facilities that do not use HEU. If the Secretary	*Sec. 621.* NAS would study the effectiveness of the current HEU export restrictions, the progress that medical isotope producers are making in converting to LEU, whether the supply of medical isotopes could be affected by the HEU restrictions, and other aspects of the issue.	The current HEU export restrictions are intended to spur foreign cooperation with U.S. efforts to convert all HEU reactors to LEU, but supporters of the exemption contend that the restrictions could disrupt the supply of medical isotopes produced in foreign HEU reactors.

Provision	House	Senate	Comments
	of Energy certifies that such demand can be met, the export exemption in the House bill would terminate.		
Fernald Byproduct Material	*Sec. 634.* DOE-managed material in the concrete silos at the Fernald (OH) uranium processing facility would be considered byproduct material (as defined by section 11 e.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)). DOE would dispose of the material in an NRC- or state-regulated facility.	No provision.	
Safe Disposal of Greater-than-Class-C Radioactive Waste	*Sec. 635.* DOE would designate an office with the responsibility for developing a comprehensive plan for permanent disposal of all low-level radioactive waste with concentrations of radionuclides that exceed the limits established by the NRC for Class C radioactive waste. The plan would include developing a new facility or use of an existing facility for disposal.	*Sec. 622.* Similar to House provision, with the additional requirement that within 180 days after enactment DOE would give Congress a plan for continued recovery and storage of radioactive sealed sources that pose a security threat.	
Prohibition on Nuclear Exports to Terrorism Sponsors	*Sec. 636.* Exports of nuclear materials, equipment, and sensitive technology would be prohibited to any country identified by the Secretary of State as a sponsor of terrorism. The President could waive the export restriction under certain conditions.	Sec. 623. Same.	This provision is intended to block implementation of a 1994 agreement under which North Korea was to receive a U.S.-designed nuclear power plant in return for abandoning its nuclear weapons program. The agreement has been suspended in light of North Korea's continuing weapons activities.
National Uranium Stockpile	*Sec. 638.* The Secretary of Energy would be authorized to create a national low-enriched uranium stockpile.	No provision.	
Nuclear Regulatory Commission Meetings	*Sec. 639.* Whenever a quorum of the Nuclear Regulatory Commission gathers to discuss official business, other than at formal Commission meetings, the discussions would have to be recorded and the public notified within 15 days. A transcript of the recording would be available to the public upon request except for information that is exempted or prohibited from disclosure by law.	No provision.	
Employee Benefits	*Sec. 640.* Subject to the availability of funds, workers at DOE's uranium enrichment plants at Portsmouth, Ohio, and Paducah, Kentucky, who were eligible for certain	No provision.	

Provision	House	Senate	Comments
	pension and health care benefits on April 1, 2005, shall continue such eligibility.		
Decommissioning Pilot Program	No provision.	*Sec. 624.* DOE would be required to establish a program to decommission and decontaminate the site of the Southwest Experimental Fast Oxide Reactor (SEFOR) in Arkansas. Funding of $16 million would be authorized.	

Advanced Reactor Project

Provision	House	Senate	Comments
Advanced Reactor Project	*Sec. 651.* DOE would be authorized to develop, design, construct, and operate an advanced nuclear reactor to produce hydrogen and electricity, called the Advanced Reactor Hydrogen Cogeneration Project. The project would be managed by the DOE Office of Nuclear Energy, Science, and Technology, and the reactor would be located at the Idaho National Laboratory. The project could be combined with DOE's existing Generation IV Nuclear Energy Systems Initiative, which focuses on development of advanced nuclear power technology. Among other requirements, the project should begin producing hydrogen or electricity by 2011 unless the Secretary of Energy finds that goal infeasible. The reactor would be licensed and regulated by NRC. Five projects to demonstrate hydrogen production at existing nuclear power plants would also be authorized. Funding for the program would be authorized at $1.3 billion through FY2015.	*Secs. 631-635.* Similar to House provision. The project would be called the Next Generation Nuclear Plant Project and could produce electricity, hydrogen, or both. Program plans for the project would be reviewed by DOE's Nuclear Energy Research Advisory Committee. DOE would be required by the end of FY2011 to select the technology to be used for high-temperature hydrogen production or notify Congress of an alternative date. A design competition would then by held, and the target date to complete construction would be the end of FY2021. Funding of $1.25 billion would be authorized through FY2015, plus such sums as necessary from FY2016 through FY2021.	
Definitions	*Sec. 652.* "Advanced nuclear reactor technologies" and other terms are defined.	No provision.	

Nuclear Security

Provision	House	Senate	Comments
Nuclear Facility Threats	*Sec. 661.* In consultation with NRC and other appropriate agencies, the President would be required to identify types of security threats at nuclear facilities. The President would have to issue reports on the identified threats and on actions taken or to be taken to address the threats. NRC would be authorized to revise its regulations based on the President's threat-identification report. NRC would be required to conduct periodic force-on-force exercises to test nuclear facility security. NRC would be authorized to issue regulations to protect information about nuclear facility security, and would be required to assign a security coordinator to each NRC region.	No provision.	NRC has been reviewing security requirements at nuclear facilities since the 9/11 terrorist attacks. The "design basis threat" that nuclear plant security forces must defend against has been revised, and all reactor sites must now conduct force-on-force security exercises every three years. NRC contends that legislation in this area is therefore unnecessary, but others contend that NRC's security requirements are inadequate.
Fingerprinting for Criminal Background Checks	*Sec. 662.* The existing requirement that individuals be fingerprinted for criminal background checks before receiving unescorted access to nuclear power plants (Atomic Energy Act, Section 149) would be extended to individuals with unescorted access to any radioactive material or property that could pose a health or security threat. Other biometric methods could be used instead of fingerprinting.	No provision.	
Use of Firearms by Nuclear Licensees	*Sec. 663.* NRC would be authorized to allow the use of firearms by security personnel at nuclear power plants and other facilities licensed or regulated by NRC.	No provision.	Federal law currently authorizes NRC employees and contractors to use firearms, but not employees or contractors of nuclear licensees (Atomic Energy Act, Section 161 k.). This provision would counter some state laws that preclude private guard forces from utilizing some weapons.
Unauthorized Introduction of Dangerous Weapons	*Sec. 664.* Existing NRC controls on the entry of dangerous weapons or materials into Commission facilities (Atomic Energy Act, Section 229a) would be extended to commercial nuclear power plants and other NRC-regulated facilities.	No provision.	
Sabotage of Nuclear Facilities or Fuel	*Sec. 665.* Maximum penalties for sabotage of licensed nuclear facilities or materials (Atomic Energy Act, Section 236 a.) would be increased from $10,000 and 10 years in prison to $1 million and life imprisonment without parole. The language would clarify that the penalties could apply to facilities "certified" as well as "licensed" by NRC, and also to sabotage of facilities under construction.	No provision.	

Provision	House	Senate	Comments
Secure Transfer of Nuclear Materials	*Sec. 666.* Nuclear materials transferred or received in the United States pursuant to an import or export license would have to be accompanied by a detailed manifest. Every worker involved in such shipments would have to undergo a federal security background check.	No provision.	
Department of Homeland Security Consultation	*Sec. 667.* Before issuing a license for a nuclear power plant, NRC would have to consult with the Department of Homeland Security about the vulnerability of the proposed plant location to terrorist attack.	No provision.	
Authorization of Appropriations	*Sec. 668.* Appropriation of such sums as necessary to carry out this subtitle would be authorized. A statutory requirement that the Nuclear Regulatory Commission recover 90% of its costs (minus certain exceptions) through licensee fees would be made permanent. NRC's costs in regulating residual defense radioactive waste under Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (50 U.S.C. 2601 note) would be excluded from costs subject to the 90% cost recovery requirement.	No provision.	The current fee requirement, imposed by the Omnibus Budget Reconciliation Act of 1990 (42 U.S.C. 2214), is set to expire September 20, 2005.

Vehicles and Fuels

Existing Programs

Provision	House	Senate	Comments
Use of Alternative Fuels by Dual-Fueled Vehicles	*Sec. 701.* Section 400AA of EPCA would be amended to require that all federal agencies operate dual-fueled vehicles on alternative fuels or petition the Secretary of Energy for a waiver from the requirement.	*Sec. 701.* Similar provision.	The sections of this subtitle refer to alternative fuel and vehicle purchase requirements under the Energy Policy and Conservation Act (EPCA) (P.L. 94-163) and the Energy Policy Act of 1992 (EPAct, P.L. 102-486). Under current law, agencies are not required to file a petition to be exempted from the requirement.

Provision	House	Senate	Comments
Fuel Use Credits	No comparable provision.	*Sec. 702.* Would allow agencies to consume alternative fuels in lieu of making required alternative fuel vehicle purchases under the Energy Policy Act of 1992.	Under current law, for covered fleets a set percentage (depending on the type of fleet) of new light-duty vehicle purchases must be alternative fuel vehicles. For every 450 gallons of biodiesel (but not other alternative fuels) consumed by a covered fleet, that fleet may purchase one fewer alternative fuel vehicle.
Incremental Cost Allocation	*Sec. 704.* Section 303(c) of EPAct allows federal agencies to allocate the incremental cost of required alternative-fuel vehicles across the whole vehicle fleet. H.R. 6 would require agencies to do so.	*Sec. 703.* Identical provision.	
Alternative Compliance and Flexibility	No comparable provision.	*Sec. 704.* Would require the Secretary of Energy to allocate vehicle purchase credits for: the acquisition of hybrid vehicles; the installation of alternative fuel refueling infrastructure; or other actions that will reduce petroleum consumption.	
Lease Condensates	Sec. 705. Would amend the definition of alternative fuel to include lease condensate (liquids recovered from natural gas separation) and fuels derived from lease condensate. Fleets could generate one vehicle purchase credit for the use of a certain volume (to be determined by the Secretary of Energy) of lease condensate fuel in medium- and heavy-duty vehicles. This provision is similar to the existing credit structure for the use of biodiesel.	No comparable provision.	
Review of Energy Policy Act of 1992 Programs	*Sec. 706.* The Secretary of Energy would be required to conduct a study on the effectiveness of the alternative fuel vehicle programs under EPAct. Specifically, the Secretary would be required to assess the effects on vehicle technology, availability, and cost.	*Sec. 1308.* Similar provision.	
Report Concerning Compliance with Alternative Fuel Vehicle Purchasing Requirements	*Sec. 707.* Would extend through 2020 the requirement that each federal agency report annually (currently required through 2012) to Congress on its compliance with EPAct vehicle purchase requirements.	*Sec. 705.* Identical provision.	

Provision	House	Senate	Comments
Procurement of Alternative Fueled Passenger Automobiles	No comparable provision.	*Sec. 723.* Federal fleets not otherwise covered by the EPAct alternative fuel vehicle requirements would be mandated to purchase solely alternative fuel passenger automobiles unless there is insufficient supply of alternative fuel.	In general, the above EPAct requirements apply to fleets of 50 vehicles or more, of which at least 20 operate primarily in metropolitan areas.
Procurement of Hybrid Light Duty Trucks	No comparable provision.	*Sec. 724.* Federal agencies with fleets not otherwise covered by the EPAct alternative fuel vehicle requirements would be mandated to purchase solely hybrid light-duty trucks, unless: those vehicles cannot meet the fleets' requirements for capabilities; the vehicles are not commercially available; or the incremental cost of the hybrid vehicle is significant. This section would exclude the Department of Defense from the requirement.	
Definitions	No comparable provision.	*Sec. 725. Alternative fueled vehicle* and other terms would be defined.	

Hybrid Vehicles, Advanced Vehicles, and Fuel Cell Buses

Provision	House	Senate	Comments
Hybrid Vehicles	*Sec. 711.* Would require the Secretary of Energy to accelerate research on technologies for hybrid vehicles. No funding authorization is included.	*Sec. 721.* Similar provision, except that $50 million annually would be authorized for FY2006 through FY2008.	
Hybrid Retrofit and Electric Conversion Program	*Sec. 712.* The Administrator of the Environmental Protection Agency (EPA) would be required to establish a grant program for the installation of technologies to retrofit existing combustion engines with electric or hybrid systems. Retrofitted vehicles must achieve federal Low Emission Vehicle standards. Would authorize a total of $100 million between FY2005 and FY2007 for the program.	No comparable provision.	
Efficient Hybrid and Advanced Diesel Vehicles	*Sec. 713.* The EPA Administrator would be required to establish a program to encourage the domestic production and sale of efficient hybrid and advanced diesel vehicles. The program must include grants to domestic vehicle manufacturers to encourage production	No comparable provision.	

Provision	House	Senate	Comments
	and provide consumer purchase incentives. A total of $3 billion is authorized between FY2006 and FY2015.		
Advanced Vehicles	*Secs. 721-724.* The Secretary of Energy would be authorized to provide grants to state governments, local governments, and metropolitan transit authorities for the purchase of alternative fuel, hybrid, fuel cell, and ultra-low sulfur diesel vehicles (defined in Sec. 721) and the infrastructure to support them. The program would be administered through the Clean Cities Program.	No comparable provision.	
	Sec. 722. Grants would be capped at $20 million per applicant. Between 20% and 25% of all grant funds would be used for ultra-low sulfur diesel vehicles.	No comparable provision.	
	Sec. 723. The Secretary would be required to submit reports to Congress identifying grant recipients and evaluating the program's effectiveness.	No comparable provision.	
	Sec. 724. $200 million total would be authorized for the grant program.	No comparable provision.	
Fuel Cell Transit Bus Demonstration	*Sec. 731.* The Secretary of Energy would be required to establish a program to demonstrate up to 25 fuel cell transit buses in various localities. $10 million annually would be authorized for FY2006 through FY2010.	No comparable provision.	
Joint Flexible Fuel/Hybrid Vehicle Commercialization Initiative	No comparable provision.	*Sec. 706.* The Secretary of Energy would be required to establish a grant program for applied research on flexible fuel hybrid vehicles. A total of $40 million would be authorized between FY2005 and FY2008.	

Clean School Buses

Provision	House	Senate	Comments
Definitions	*Secs. 741-744.* Definitions of "alternative fuel school bus" and other terms are provided.	No comparable provision.	
Program for Replacement of Certain School Buses	*Sec. 742.* A pilot program administered by the Environmental Protection Agency would be established to provide grants to local governments and contractors that provide school bus service for public school systems. Grants would be provided to aid in the purchase of alternative fuel and	No comparable provision.	

Provision	House	Senate	Comments
With Clean School Buses	advanced diesel buses, and the infrastructure necessary to support them. A total of $200 million would be authorized for FY2005 through FY2007, and a maximum of 30% of the grant funds could be used to purchase advanced diesel buses.		
Diesel Retrofit Program	*Sec. 743.* A pilot program would also be established to provide grants for the development and application of retrofit technologies for diesel school buses. A total of $100 million would be authorized for FY2005 through FY2007.	No comparable provision.	
Fuel Cell School Buses	*Sec. 744.* In addition, a pilot program would be established for the development and demonstration of fuel cell school buses. A total of $25 million would be authorized for FY2005 through FY2007.	No comparable provision.	
Diesel Truck Retrofit and Fleet Modernization Program	*Sec. 743A.* The EPA Administrator would be required to establish a program to provide grants (administered by state or local governments) to modernize cargo truck operations. Grants would be used to retrofit pre-1999 vehicles with advanced emissions control devices. A total of $100 million would be authorized between FY2005 and FY2007.	*Secs. 751-757.* The EPA Administrator would be required to establish a program to provide grants and loans for diesel engine retrofits. Would require EPA to provide grants and loans for retrofits of various types of engines including buses, heavy-duty trucks, locomotives, and marine engines. Would require EPA to support grant and loan programs administered by the states. Would require a report to Congress evaluating the implementation of the programs. $200 million would be authorized annually for FY2006 through FY2010.	

Miscellaneous

Provision	House	Senate	Comments
Railroad Efficiency	*Sec. 751.* A public-private research partnership would be established for the development and demonstration of locomotive engines that increase fuel economy, reduce emissions, and lower costs. A total of $110 million would be authorized for FY2006 through FY2008.	*Sec. 731.* Similar provision.	
Mobile Emission Reductions Trading	*Sec. 752.* Within 180 days of enactment, the EPA Administrator would be required to submit a report to Congress on EPA's experience with the trading of mobile source emission reduction credits to stationary sources to meet emission offset requirements within Clean Air Act nonattainment areas.	No provision.	

Provision	House	Senate	Comments
Aviation Fuel Conservation and Emissions	*Sec. 753*. This section would require the Federal Aviation Administration and EPA to initiate a joint study of the impact of aircraft emissions on air quality in Clean Air Act nonattainment areas, ways to promote fuel conservation measures and reduce emissions, and opportunities to reduce air traffic inefficiencies that increase fuel burn and emissions within 60 days of the date of enactment, and to report the results to Congress within one year of initiating the study.	No provision.	
Diesel Fueled Vehicles	*Sec. 754*. The Secretary of Energy would be required to accelerate research on emissions control technologies for diesel motor vehicles. The objective of the research would be to enable diesel technology to meet, not later than 2010: Tier 2 light-duty vehicle emission standards; and model year 2007 heavy-duty vehicles. No new funding would be authorized.	*Sec. 722*. Similar provision, except that $75 million would be authorized annually for FY2006 through FY2008.	The Tier 2 light-duty vehicle emissions standards will be phased in between model years 2004 and 2009. The heavy-duty diesel engine standards will be phased in beginning in 2007.
Conserve by Bicycling Program	*Sec. 755*. The Department of Transportation (DOT) would be directed to conduct up to 10 pilot bicycling projects to conserve energy. A minimum of 20% of each project's costs would have to be provided by state or local sources. Also, DOT would be directed to engage the National Academy of Sciences to conduct a research study on the feasibility of converting motor vehicle trips to bicycle trips.	*Sec. 732*. Similar provision, except that the cost-sharing requirement could be met by any "non-federal sources."	
Reduction of Engine Idling of Heavy-Duty Vehicles	*Sec. 756*. EPA would be required to study whether existing air emission models accurately reflect emissions from idling vehicles. Further, EPA would be required to establish a program to support the deployment of idle-reduction technologies. A total of $95 million would be authorized for FY2006 through FY2008 for the deployment program.	*Sec. 733*. Similar provision.	
Biodiesel Engine Testing Program	*Sec. 757*. The Secretary of Energy would be required to study the effects of biodiesel and biodiesel blends on current and future emissions control technologies. $5 million would be authorized annually for FY2006 through FY2010.	*Sec. 734*. Similar provision.	
High Occupancy Vehicle Exception	*Sec. 758*. The Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178) would be amended to allow states to exempt hybrid and dedicated alternative fuel vehicles from high occupancy vehicle (HOV) restrictions.	No comparable provision.	Through September 30, 2003, states had the authority to exempt certain types of alternative fuel vehicles from the restrictions. However, hybrid vehicles and some alternative fuel vehicles did not qualify. As the existing authorization has expired, states do not currently have the authority to exempt any type of alternative fuel vehicle from HOV restrictions.

Provision	House	Senate	Comments
Ultra-Efficient Engine Technology for Aircraft	*Sec. 759*. The Secretary of Energy, in cooperation with the National Aeronautics and Space Administration, would be required to develop new engine technology for aircraft with a goal of a 10% increase in fuel efficiency and a 70% decrease in nitrogen oxide emissions during takeoff and landing. A total of $225 million would be authorized between FY2006 and FY2010.	No comparable provision.	

Automobile Efficiency

Provision	House	Senate	Comments
Fuel Economy Standards	*Sec. 771*. Would authorize $2 million annually during FY2006-FY2010 for the National Highway Traffic Safety Administration (NHTSA) to carry out fuel economy rulemakings.	*Sec. 712*. Same, except $5 million annually.	
Increased fuel economy standards	No comparable provision.	*Sec. 712*. This would require the Secretary of Transportation to issue new CAFE standards for light-duty trucks by April 1, 2006. These would apply beginning with MY2007. Final regulations for increasing passenger automobile fuel economy would be required not later than 30 months after enactment of the legislation.	
Criteria to be taken into account in setting maximum feasible fuel economy standards.	*Sec. 772*. Would expand the criteria that the agency would be required to take into account in setting maximum feasible fuel economy for cars and light trucks, including the effects of prospective standards on vehicle safety and automotive industry employment.	*Sec. 711*. Would add more criteria than the House bill, including the extent to which advanced technologies might achieve significant reductions in fuel consumption and the extent to which meeting higher CAFE standards might divert resources from developing these advanced technologies.	
Expedited procedures for Congressional increase in fuel economy standards.	No comparable provision.	*Sec. 713*. In the event that the Secretary of Transportation does not promulgate new standards (as specified in *Sec. 712*), the Senate bill would provide expedited procedures for passage of legislation by Congress to set new CAFE standards.	
Extension of maximum fuel economy increase for alternative fueled vehicles.	*Sec. 773*. Would also extend corporate average fuel economy (CAFE) credits that accrue to manufacturers of dual-fueled vehicles. The cap to the credit of 1.2 miles per gallon (mpg) earned by any individual manufacturer would be extended to model year (MY) 2010. It was otherwise scheduled to drop to a	*Sec. 714*. Would also extend corporate average fuel economy (CAFE) credits that accrue to manufacturers of dual-fueled vehicles. The cap to the credit of 1.2 miles per gallon (mpg) earned by any individual manufacturer would be extended to MY2008. The bill would	

Provision	House	Senate	Comments
	cap of 0.9 mpg beginning in MY2005. The bill would postpone institution of the 0.9 cap until MY2011 and authorize it through MY2014.	postpone institution of the 0.9 cap until MY2009 and authorize it through MY2012.	
Study about significantly reducing gasoline consumption by model year (MY) 2012.	*Sec. 774.* Would require the National Highway Traffic Safety Administration to explore the feasibility and effects of reducing automobile fuel consumption "a significant percentage" by MY2014.	*Sec. 1309.* Similar to the House bill, but goal is achieving the "significant reduction" by 2012.	
Adjustment to estimated in-use fuel economy posted on new vehicles.	*Sec. 775.* Would require adjustment of tested fuel economy levels so that estimates posted on new vehicles would be closer to experience. Adjustments would include use of air conditioning, higher speed limits, and faster acceleration rates.	No comparable provision.	
Study of link between energy security and increases in vehicle miles traveled.	No comparable provision	*Sec. 1336.* Requires study by the National Academy of Sciences with a similar objective to the study specified in Sec. 1309, but would examine links between and development patterns and vehicle miles traveled (VMT), and whether VMT and the number of vehicle trips can be reduced by better planning, design, development and infrastructure decisions by state and local officials	

Hydrogen

Provision	House	Senate	Comments
Definitions	*Sec. 801.* Definitions of "fuel cell" and other terms are provided.	*Sec. 801.* Would amend and reauthorize the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12401 et seq.).	Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12401 et seq.) authorizes hydrogen and fuel cell research at the Department of Energy. Funding levels were authorized through FY2001, although research is ongoing.

Provision	House	Senate	Comments
Plan	*Sec. 802.* Would require the Secretary of Energy to develop a plan for the development of hydrogen fuel and fuel cells.	No comparable provision.	
Interagency Task Force and Advisory Committee	*Secs. 804 and 805.* Would establish an Interagency Task Force to coordinate federal research (Sec. 804), and would establish a Hydrogen Technical and Fuel Cell Advisory Committee to advise the Secretary and review the development plan (Sec.805).	*Sec. 102 (of the amended Matsunaga Act).* Would establish an Interagency Hydrogen and Fuel Cell Technical Task Force to advise the Secretary on the implementation of the act. Would also establish a Technical Advisory Committee to provide technical assistance to the Secretary and the task force.	Current law established a Hydrogen Technical Advisory Panel to advise the Secretary on programs under the Act. Further, the Act gives the Secretary the authority to consult with other agencies, but does not require the Secretary to do so.
External Review	*Sec. 806.* DOE's plans for the hydrogen program would be reviewed by the National Academy of Sciences.	No comparable provision.	
Miscellaneous Provision	*Sec. 807.* The Secretary of Energy would be authorized to represent U.S. interests related to hydrogen programs domestically and internationally in coordination with relevant federal agencies.	No comparable provision.	
Savings Clause	*Sec. 808.* Specified authorities of the Secretary of Transportation would not be affected.	No comparable provision.	
Authorization of Appropriations	*Sec. 809.* A total of $4 billion would be authorized for FY2006 through FY2010 for all hydrogen and fuel cell research, development, and demonstration activities.	*Sec. 801.* A total of $3.3 billion would be authorized for FY2006 through FY2010 in the following areas: $1.06 billion for hydrogen supply research and development (Sec. 104 of the amended Act); $0.86 billion for fuel cell research and development (Sec. 104); $1.31 billion for demonstration programs (Sec. 202); $0.04 billion for codes and standards.	
Solar and Wind Technologies	*Sec. 810.* Would create program of five pilot projects to demonstrate the use of solar energy to produce hydrogen. Further, would create a program of five pilot projects to demonstrate the use of wind energy to produce hydrogen. DOE would be directed to support research programs at universities that study the use of solar and wind energy technologies to produce hydrogen.	No comparable provision.	

Provision	House	Senate	Comments
Hydrogen Fuel Cell Buses	*Sec. 811.* The Secretary of Energy, through the Advanced Vehicle Technologies Program, would be required to establish four fuel cell bus demonstration sites.	No comparable provision.	
Definitions	No comparable provision.	*Sec. 741.* Provides definitions for Sections 742 and 743.	
Federal and State Procurement of Fuel Cell Vehicles and Hydrogen Energy Systems	No comparable provision.	*Sec. 742.* All federal agencies that use light- or heavy-duty vehicles would be required to lease or purchase fuel cell vehicles and hydrogen energy systems. The Secretary of Energy would be required to pay federal agencies the incremental cost of the new systems. The Secretary of Energy would be permitted to establish cooperative program with state agencies to encourage the purchase of fuel cell vehicles. A total of $105 million would be authorized between FY2006 and FY2008.	
Federal Procurement of Stationary, Portable, and Micro Fuel Cells	No comparable provision.	*Sec. 743.* All federal agencies that use electrical power from stationary, portable, or microportable devices would be required to lease or purchase stationary, portable, or micro fuel cells. The Secretary of Energy would be required to pay or share the cost of the new systems. The Secretary of Energy would be permitted to establish cooperative program with state agencies to encourage the purchase of fuel cell vehicles. A total of $345 million would be authorized between FY2006 and FY2010.	

Research and Development

Provision	House	Senate	Comments
Short Title; Definitions	*Sec. 900.* This title would be referred to as the "Energy Research, Development, Demonstration, and Commercial Application Act of 2005." Defines, for the purposes of this title, the terms *applied programs, biomass, Department,*	Secs. 901-903. Same short title as House bill. Defines departmental mission, Hispanic-serving institution, nonmilitary energy laboratory, part B institution, and single-purpose research facility. DOE would be	

Provision	House	Senate	Comments
	departmental mission, institution of higher education, National Laboratory, renewable energy, Secretary, State, university, and *user facility*.	required to publish "measurable cost and performance-based goals" for each major energy R&D area.	
Support for Science and Energy Facilities and Infrastructure	No comparable provision.	*Sec. 963*. DOE would be required to develop a strategy for science and energy R&D infrastructure and describe the strategy in the FY2007 budget request.	

Science Programs

Provision	House	Senate	Comments
Office of Science Programs	*Sec. 901*. The programs of the Office of Science would be authorized in general, and DOE would be directed to commence construction of the Rare Isotope Accelerator no later than September 30, 2008. Expenditures on the Rare Isotope Accelerator prior to operation would be limited to $1.1 billion.	No similar provision.	
Systems Biology Program (House) / Genomes to Life Program (Senate)	*Sec. 902*. DOE would be directed to establish a program of research, development, and demonstration in genetics, protein science, and computational biology, with specified goals. DOE would have to submit a research plan for this program to Congress within one year and contract with the National Academy of Sciences to review the plan within an additional 18 months. Biomedical research and research related to humans would not be permitted as part of the program.	*Sec. 968*. DOE would be directed to carry out a program of research, development, demonstration, and commercial application in microbial and plant systems biology, protein science, and computational biology, with specified goals, to be known as the "Genomes to Life Program." DOE would have to prepare a program plan and update its short-term goals each year together with the annual budget submission.	
Catalysis Research and Development Program	*Sec. 903*. DOE would be directed to conduct a program of R&D in catalysis science.	*Sec. 964*. Similar to the House provision. Program content would be specified in more detail. In addition, a triennial assessment of the program by the National Academy of Sciences would be required.	

Provision	House	Senate	Comments
Hydrogen	*Sec. 904.* DOE would be directed to conduct a program of fundamental R&D in support of the hydrogen programs authorized in Title VIII.	*Sec. 965.* In addition to the House language, the hydrogen program would be required to include support for generating hydrogen without the use of natural gas.	
Solid State Lighting	No similar provision.	*Sec. 966.* DOE would be directed to conduct a program of research on advanced solid state lighting in support of the initiative established by Sec. 912.	
Advanced Scientific Computing Research	*Sec. 905.* DOE would be directed to conduct a program of R&D in advanced scientific computing, including applied mathematics and the activities authorized by the Department of Energy High-End Computing Revitalization Act of 2004 (P.L. 108-423).	*Sec. 967.* Similar to the House provision, with the addition of advanced visualization techniques as one of the goals of the program. In addition, Sec. 203 of the High-Performance Computing Act of 1991 (15 U.S.C. 5523) would be amended as follows: DOE's general responsibilities as part of the interagency National High-Performance Computing Program would be modified; DOE would no longer be required, as part of that program, to establish consortia, engage in technology transfer, or submit an annual report (but these activities would not be prohibited); and the authorization of appropriations for the program for fiscal years already completed would be replaced by a general authorization of "such sums as are necessary."	
Fusion Energy Sciences Program	*Sec. 906.* Research, development, demonstration, and commercial application directed at competitiveness in fusion energy, including a demonstration of the utilization of fusion energy to produce electric power or hydrogen, would be declared to be U.S. policy. DOE would be directed to submit a plan to carry out that policy. Authority would be given for the United States to participate in the international fusion energy experiment known as ITER (International Thermonuclear Experimental Reactor). DOE would be directed to develop a plan for ITER participation and have it reviewed by the National Academy of Sciences. Funds could not be expended for ITER construction until the plan and other reports were provided to Congress. If construction of ITER	*Sec. 962.* Similar to the House provision. In addition, DOE would be directed to include in the fusion policy plan, to the extent possible, the recommendations on workforce planning that were made in March 2004 by DOE's Fusion Energy Sciences Advisory Committee.	The United States withdrew from the design phase of ITER in 1998 at congressional direction, largely because of concerns about cost and scope. The project has since been restructured, and in January 2003, the Administration announced its intention to reenter the project. Other international partners include the European Union, Japan, Russia, China, and South Korea. A site in France was officially selected on June 28, 2005.

Provision	House	Senate	Comments
	appeared unlikely, DOE would be directed to submit a plan for a domestic burning plasma experiment.		
Fission and Fusion Energy Materials Research Program	No similar provision.	*Sec. 969.* DOE would be directed to establish a program of R&D on materials science for advanced fission reactors and DOE's fusion energy program.	
Energy-Water Supply Technologies Program	No similar provision.	*Sec. 970.* A program would be established, within the Biological and Environmental Research program of the DOE Office of Science, to study energy-related issues associated with water supply and water supply issues related to energy production. Arsenic removal, desalination, and water resource sustainability would be among the areas to be investigated. Research projects under this section would not require cost-sharing, despite Sec. 1002 (see below), but demonstration projects would.	
Spallation Neutron Source	No similar provision.	*Sec. 971.* DOE would be directed to submit to Congress an annual progress report on the Spallation Neutron Source and develop an operational plan for the facility that meets specified requirements. Appropriations would be authorized for the lifetime of the project overall and for certain related items in FY2006, FY2007, and FY2008.	Construction of the Spallation Neutron Source, a research facility at Oak Ridge National Laboratory, is expected to be completed during FY2006.
Science and Technology Scholarship Program	*Sec. 907.* DOE would be authorized to establish a scholarship program to help recruit and prepare students for careers in DOE. Scholarship recipients would be required to work for DOE for 24 months per academic year of scholarship received.	No similar provision.	
Workforce Trends and Traineeship Grants	No comparable section.	*Sec. 1101.* Would require Secretary report to Congress, within 1 year, on current trends under trends in the workforce in skilled technical personnel that support energy technology industries; and electric power and transmission engineers; and establish grant programs to	

Provision	House	Senate	Comments
		enhance training for any workforce category for which a shortage is identified or predicted.	
Energy Research Fellowships	No comparable section.	*Sec. 1102.* Would establish a Postdoctoral Fellowship Program to encourage outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development at institutions of higher education of their choice.	
Educational Programs in Science and Mathematics	No comparable section.	*Sec. 1103.* Would amend the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) by requiring the Energy Secretary to use not less than 0.2 percent of the amount made available to DOE for fiscal year 2006 and each fiscal year thereafter to carry out authorized activities. The section would also amend 42 U.S.C. 7381b by adding provisions for competitive events for students, competitively-awarded, peer-reviewed programs to promote professional development for math and science teachers, summer internships for teachers. The Energy Secretary would enter into an arrangement with the National Academy of Public Administration to conduct a study of the priorities, quality, local and regional flexibility, and plans for educational programs at Department research and development facilities.	
Improved Access to Energy-related Scientific and Technical Careers.	No comparable section.	*Sec. 1106.* Would amend the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) by adding at the end the following: Programs for Students from Under-represented Groups; and Partnerships with Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges.	
Office of Scientific and Technical Information	*Sec. 908.* DOE would be directed to maintain the Office of Scientific and Technical Information.	No similar provision.	

Provision	House	Senate	Comments
Science and Engineering Pilot Program	*Sec. 909*. DOE would be directed to award a grant to Oak Ridge Associated Universities to establish a regional pilot program to enhance scientific, technological, engineering, and mathematical literacy, creativity, and decisionmaking. The program would involve research universities, universities that train elementary and secondary school teachers, and DOE national laboratories. A report would be required on lessons learned from the pilot program, including a plan for expanding the program nationwide.	No similar provision.	
Authorization of Appropriations	*Sec. 910*. Appropriations would be authorized for the Office of Science for FY2006 through FY2010, with increases of 10%-15% per year. Within these totals, appropriations would be authorized for the individual programs described in *Secs. 902, 905, 906* (except ITER), *907, 908, and 909*. Appropriations for construction of ITER would be authorized separately, as would appropriations for integrated bioenergy R&D for FY2005 through FY2009.	*Sec. 961*. Appropriations would be authorized for the Office of Science for FY2006 through FY2008, at levels somewhat higher than in the House bill. Within these totals, appropriations would be authorized for the individual programs described in *Secs. 962, 964, 968*, and *970*.	See also Senate *Secs. 967 and 971* above regarding authorization of appropriations for the Advanced Scientific Computing Research program and the Spallation Neutron Source facility, both of which are in the Office of Science.

Research Administration and Operations

Provision	House	Senate	Comments
Cost Sharing	*Sec. 911*. Cost sharing would be required for programs carried out under this title. The minimum non-federal share would be 20% for R&D programs and 50% for demonstration and commercial application programs, but DOE could lower or waive these requirements in certain circumstances.	*Sec. 1002*. Cost sharing would be required activities under this title. Not less than 20 % of the cost R&D activity would provided by a non-Federal source, and 50% for demonstration or commercial application activity. DOE could reduce the non-Federal share in consideration of any technological risk. This section would not apply to a cooperative R&D agreement under the Stevenson-Wydler Technology Innovation Act.	

Provision	House	Senate	Comments
Reprogramming	*Sec. 912*. Within 60 days after any appropriation authorized under this title, DOE would be required to report to Congress on how the appropriated amounts would be distributed. Subsequent reprogramming would be limited to the lesser of 2% or $2 million unless reported to Congress with at least 30 days' notice.	No comparable section.	
Merit-Based Competition	*Sec. 913*. Awards of funds authorized under this title would be permitted only through open competitions following an impartial review of scientific and technical merit.	*Sec. 1003*. Awards of funds authorized under this title would be made only after an impartial review of the scientific and technical merit.	
External Technical Review of Departmental Programs	*Sec. 914*. Advisory committees would be established for DOE programs in energy efficiency, renewable energy, nuclear energy, and fossil energy. The requirement could be met by existing DOE committees. Existing advisory committees would continue for the programs of the Office of Science, and the chairs of the Office of Science committees would constitute a Science Advisory Committee for the Director of the Office. DOE would be directed to arrange with the National Academy of Sciences to review and assess the programs authorized by this title, and reports on the results of these reviews and assessments would be due to Congress within two years of enactment.	*Sec. 1004*. Advisory boards would be established to review DOE research, development, demonstration, and commercial application programs. The scientific program advisory committees chartered under the Federal Advisory Committee Act would continue to used by the Office of Science to oversee research and development programs under that Office. DOE would also enter into arrangements with the National Academy of Sciences to conduct periodic reviews and assessments of the authorized programs. The Secretary of Energy would report to Congress describing the results of all the reviews and assessments.	
Competitive Award of Management Contracts	*Sec. 915*. Management and operating contracts for DOE national laboratories (except Livermore, Los Alamos, Sandia, and Savannah River) would have to be awarded competitively unless the Secretary of Energy granted a waiver on a case-by-case basis. The Secretary would not be permitted to delegate his waiver authority and would have to notify Congress at least 60 days before awarding a non-competitive contract.	No comparable section.	In the past, management contracts at most DOE laboratories have been extended without competition. In some cases, laboratories have been managed by the same contractor for 60 years or more. In November 2003, DOE released the report of a blue-ribbon commission that it established to examine this issue. The commission's report is available online at http://www.seab.doe.gov/publications/brcDraftRpt.pdf. It states that "the issue of whether competition should be routinely used for

Provision	House	Senate	Comments
			research and development laboratories is subject to wide and varied opinions."
National Laboratory Designation	*Sec. 916.* DOE would be prohibited from designating additional facilities as national laboratories, beyond those defined in *Sec. 900*.	No comparable section.	
Report on Equal Employment Opportunity Practices	*Sec. 917.* DOE would be required to report to Congress with one year and every two years thereafter on equal employment opportunity practices at the national laboratories.	No comparable section.	
User Facility Best Practices Plan	*Sec. 918.* No DOE facility would be permitted to begin operating as a user facility unless DOE had developed and transmitted to Congress a plan for staffing the facility, allocating time fairly to its users, and operating it in a safe and fiscally prudent manner.	No comparable section.	DOE user facilities are available to outside researchers.
Support for Science and Energy Infrastructure and Facilities	*Sec. 919.* DOE would be directed to develop and implement a strategy for maintaining existing facilities and infrastructure, closing unnecessary facilities, modifying facilities, and building new facilities. A report to Congress would be required by June 1, 2007, summarizing the strategy.	No comparable section.	
Coordination Plan	*Sec. 920.* DOE would be directed to develop a plan to improve coordination and collaboration in research, development, demonstration, and commercial application activities across DOE organizational boundaries. A conference of program managers from the Office of Science and the applied programs would be convened as part of the process of developing this plan. DOE would be required to transmit the plan to Congress within nine months and transmit a revised version every two years thereafter.	No comparable section.	

Provision	House	Senate	Comments
Improved Technology Transfer of Energy Technologies	No comparable section.	*Sec. 1005*. A Technology Transfer Coordinator would be appointed as principal advisor on all matters relating to technology transfer and commercialization. A Technology Transfer Working Group, would be established consisting of representatives of the National Laboratories and research facilities. An Energy Technology Commercialization Fund, using 0.5% of the amount made available to DOE for each fiscal year, would be used to provide matching funds with private partners to promote promising technologies for commercial purposes. Not later than 180 days after enactment of this title, the Energy Secretary would report to Congress on a technology transfer execution plan, with updates yearly.	
Technology infrastructure program	No comparable section.	*Sec. 1006*. DOE would establish a new program to improve the ability of National Laboratories and research facilities to support the Energy Department's missions by stimulating the development of technology clusters; improving National Laboratories/facilities abilities to benefit from commercial research, technology, products, processes, and services; and encourage the exchange between National Laboratories/facilities and non-federal entities. The Secretary would report on the program by July 1, 2008.	
Improved coordination and management of civilian science and technology programs	No comparable section.	*Sec. 1010*. Would add an Under Secretary for Energy and Science who would monitor the research and development programs of the Department, reconfigure the position of Director of the Office of Science to an Assistant Secretary level, and an additional Assistant Secretary position to enable improved management of nuclear energy issues.	
Availability of Funds	*Sec. 921*. Funds authorized under this title would remain available for three years.	*Sec. 1001*. Funds authorized would remain available until expended.	

Provision	House	Senate	Comments
Relationship to Other Laws.	No comparable section.	*Sec. 1009.* The research, development, demonstration, and commercial application programs, projects, and activities authorized by this Act would be conducted according to applicable provisions of the Atomic Energy Act; the Federal Nonnuclear Energy Research and Development Act; the Energy Policy Act; the Stevenson-Wydler Technology Innovation Act,and the "Bayh-Dole Act."	
Prizes for Achievement in Grand Challenges of Science and Technology.	No comparable section.	*Sec. 1012*. Would authorize a program to award cash prizes in recognition of breakthrough achievements in research, development, demonstration, and commercial application that have the potential for application to the performance of the mission of the Department.	
Technical Corrections.	No comparable section.	*Sec. 1013*. Would amend language in the Coal Research and Development Act of 1960, and the Federal Nonnuclear Energy Research and Development Act of 1974 to reflect update terms and titles.	

Energy Efficiency—Vehicles, Buildings, and Industries

Provision	House	Senate	Comments
Programs	*Sec. 922.* General objectives would be set for DOE energy efficiency programs in terms of energy security, reduced costs, and environmental impacts. A report would be required to provide cost and performance baselines and set quantitative targets for energy and cost savings over five fiscal years.	No similar provision.	
Energy Efficiency Science Initiative	No similar provision.	*Sec. 915.* DOE would be required to establish an energy efficiency research program, with grants to be competitively awarded and subject to peer review. A report to Congress would be required	

Provision	House	Senate	Comments
		that is included in the President's annual budget request and describes the process used to award funds.	
Vehicles	*Sec. 923.* DOE would be directed to conduct a research, development, demonstration, and commercial application (RDD&C) program for hybrid and electric vehicles, advanced engines, advanced materials, and advanced drivetrains. Also, a hydrogen propulsion and infrastructure RDD&C program would be established.	No similar provision.	
Buildings	*Sec. 924 (a) and (b).* This provision would direct DOE to conduct an RDD&C program to improve the energy efficiency and environmental performance of commercial, industrial, institutional, and residential buildings. This program is to include advanced controls, building envelope, building components (e.g. lighting, appliances), and onsite renewable energy use. Also, a pilot grant program would be created to help businesses and organizations demonstrate energy efficiency technologies for buildings. It would provide up to 50% of design and energy modeling costs, with a maximum of $50,000.	No similar provision.	
High Performance Building Standards	*Sec. 924 (c).* DOE would be directed to work with the National Institute of Building Sciences to prepare a report that assesses the effectiveness of voluntary building energy performance standards. After receiving the report, DOE would be required to establish a program of technical assistance and grants to support revisions of existing standards.	*Sec. 916.* Same provision, except that the technical assistance and grants program would be required to comply with the National Technology Transfer and Advancement Act of 1995 and amendments thereto.	
National Building Performance Initiative	No similar provision.	*Sec. 913.* Would direct the Department of Commerce, in coordination with DOE, to establish an interagency task group that would create a plan to integrate work among federal, state, and voluntary organizations to improve the energy efficiency performance of buildings. A report to Congress on the findings of the plan would be required.	
National Center for Energy Management and Building Technologies	No similar provision.	*Sec. 1105.* Would direct DOE to support ongoing activities of the Center in research, education, and training focused on energy efficiency for buildings.	
Industries	*Sec. 925.* Would direct DOE to conduct an RDD&C program to improve the energy efficiency, environmental performance, and process efficiency of energy-intensive and waste-intensive industries. This program would include RDD&C on	No similar provision.	

Provision	House	Senate	Comments
	advanced control devices to improve the efficiency of electric motors, including those used in industrial settings.		
Demonstration and Commercial Application	*Sec. 926.* DOE would be directed to consider applying more efficient technologies to improve the energy efficiency of equipment and test procedures used to measure appliance energy efficiency. Further, DOE would be required to coordinate with public and private organizations to study means of updating building energy codes. Also, a DOE grant program (50% federal match) would be established to support state and local governments, universities, and nonprofit organizations to create a network of Advanced Energy Technology Transfer Centers. Additionally, this section would require that a periodic report to Congress be prepared on activities generated by the foregoing provisions.	No similar provision.	
Secondary Electric Vehicle Battery Use Program	*Sec. 927.* A program would be established at DOE for RDD&C on applications for worn out electric vehicle batteries for utility and commercial power storage and power quality. A 50% cost share by the project proposer (e.g. state or local government, manufacturer) would be required.	*Sec. 914.* Same provision, except that project proposers would be required to satisfy a 20% cost share set by Section 1002, which also allows the Secretary of DOE to waive the requirement under certain conditions.	
Next Generation Lighting Initiative	*Sec. 928.* A DOE program would be created that aims to develop advanced white light-emitting diodes (LEDs) for high efficiency lighting. These LEDs are expected to be more efficient than incandescent and fluorescent lights. Also, DOE would be directed to arrange for the National Academy of Sciences to conduct periodic reviews of the initiative.	*Sec. 912.* Same provision.	
Definitions	*Sec. 929.* Would define the phrase "cost-effective" in terms of simple payback within 10 years and define "whole-buildings approach" in terms of a life-cycle basis for energy use and costs.	No similar provision.	
Authorization of Appropriations	*Sec. 930.* For the preceding sections of Subtitle C, this provision would set out authorization figures for FY2006 through FY2010.	*Sec. 911 (a), (b), (c).* For the other sections of Subtitle A, this provision would set out authorization figures for FY2006 through FY2008.	
Limitation on Use of Funds	*Sec. 931.* This section would prohibit the use of funds authorized by *Sec. 930* for energy efficiency regulations and for DOE's Weatherization, State Energy, and Federal Energy Management Programs.	*Sec. 911(d).* This section would prohibit the use of funds authorized by *Sec. 911 (a), (b), (c)* for energy efficiency regulations and for DOE's Weatherization, State Energy, and Federal Energy Management Programs.	

Energy Efficiency—Distributed Energy and Electric Energy Systems

Provision	House	Senate	Comments
Distributed Energy	*Sec. 932(a), (c).* Would authorize a DOE RDD&C program for a variety of technologies that include the integration of renewable energy, fuel cells, combined heat and power (CHP), microturbines, and other equipment. Also, DOE would be directed to report to Congress on outcome measures that cover five-year cost and energy-saving performance baselines.	No similar provision.	
Distributed Energy Technology Demonstration Program	No similar provision.	*Sec. 924.* Would require DOE to provide financial assistance to consortia for demonstrations to accelerate the use of distributed energy technologies.	
Micro-Cogeneration	*Sec. 932(b).* Would direct DOE to establish competitive, merit-based grants to consortia to develop micro-cogeneration technology, including systems that could be used for residential heating.	*Sec. 923.* Same provision.	
Electricity Transmission and Distribution and Energy Assurance	*Sec. 933.* Would authorize a DOE RDD&C program addressing energy efficiency, reliability, and security of the nation's electric transmission and distribution system. A technology development program would focus on delivery and storage, grid reliability, load reduction, high temperature supercon-ductivity, and others. Further, a report to Congress would be required, which covers outcome measures with five-year cost and energy-saving performance baselines. A university grant program would be created that works with the Tennessee Valley Authority on a program to improve power flow through high voltage transmission lines.	*Sec. 925.* Would authorize a DOE RDD&C program addressing efficiency, reliability, and environmental integrity. A technology development program would have the same features as that in the House bill. DOE would be directed to devise a five-year plan and consider using a consortium with industry, university, and national laboratory members to implement the program. A report to Congress would be required that describes progress and identifies needs for additional resources. Also, the provision would establish a Power Delivery Research Initiative focused on superconductivity and a Transmission and Distribution Grid Planning Initiative focused on software tools to expand T&D in a competitive market setting.	
Advanced Portable Power Devices	*Sec. 933A.* DOE would be directed to establish an RDD&C program for small-scale mechanical and electromechanical devices that can be used for communications, mobility enhancement, medical needs, and other purposes. Further, the provision would direct DOE to utilize the resources of universities that have demonstrated capability to develop these devices for civilian or military use.	No similar provision.	

Provision	House	Senate	Comments
High Power Density Industry Program	No similar provision.	*Sec. 922.* This provision would direct DOE to establish an RDD&C program to improve the energy efficiency of data centers, computer server farms, and telecommunications facilities.	
Authorization of Appropriations	*Sec. 934.* For the programs in *Sections 932, 933, and 933A*, would authorize appropriations for FY2006 through FY2010.	*Sec. 921.* Would authorize appropriations for distributed energy, 2006 through 2008; for power delivery research, 2006 through 2008; and for micro-cogeneration, 2006 through 2007.	

Renewable Energy

Provision	House	Senate	Comments
Findings	*Sec. 935.* One finding would be that renewable energy is a growth industry in which the United States is losing market share. Two other key findings would be that the United States is increasingly dependent on imported energy and that the high cost of fossil fuels hurts the economy. Further findings would include that renewable energy can reduce demand for imported energy and small reductions in demand can yield large reductions in price.	No similar provision.	
Definitions	*Sec. 936.* "Biobased product" would be defined as a commercial or industrial product (other than food or feed) that is composed mainly of agricultural or forestry materials. "Cellulosic biomass" would be defined as a crop grown to produce lignocellulose or hemicellulose as a feedstock. This could include barley grain, rice matter, soybean matter, bagasse, forest thinnings, or other materials.	No similar provision.	
Programs	*Sec. 937.* DOE would be directed to conduct a renewable energy RDD&C program with goals that include improving energy security, reducing costs, decreasing environmental impacts, and increasing equipment exports. Further, a report to Congress would be required, which covers outcome measures with five-year cost and energy-saving performance baselines.	No similar provision.	
Solar	*Sec. 938.* DOE would be required to conduct an RDD&C program for solar energy, including photovoltaics, solar hot water, solar space heating,	*Sec. 934.* DOE would be authorized to conduct a research program on concentrating solar power to establish the technology and economics of	

Provision	House	Senate	Comments
	and concentrating solar power. Also, DOE would be required to include efforts to develop products that could be easily integrated into new and existing buildings and manufacturing techniques that could produce low-cost, high quality equipment.	both electricity and hydrogen production. A report to Congress would be required, which recommends future research. *Sec. 935.* DOE would be authorized to conduct research on novel lighting systems that integrate sunlight and electrical lighting in common lighting fixtures to increase energy efficiency. A report by the National Academy of Sciences would be required.	
Bioenergy Programs	*Sec. 939.* DOE would be directed to conduct programs on cellulosic biomass, biofuels, bio-based products, integrated biorefineries, and university biodiesel fuel use for electric power. Also, grants would be established to support these programs at Historically Black Colleges and Universities, Tribal Colleges, and Hispanic-Serving Institutions.	*Sec. 932.* DOE would be directed to conduct a broad program of RDD&C in biopower, biofuels and bioproducts, including technologies using cellulosic feedstocks or enzyme-based processing.	
Production Incentives for Cellulosic Biofuels	No similar provision.	*Sec. 938.* Would have goals to accelerate deployment and commercialization of biofuels, produce the first one billion gallons of cellulosic biofuels by 2015, and ensure that biofuels become cost competitive by 2015. The primary strategy would be for DOE to conduct a "reverse auction," wherein bidders submit a desired level of incentive and estimated annual production and then DOE makes awards to the entities submitting the lowest level of production incentive. No single project would receive more than 25% of the funds committed to each auction.	
Procurement of Biobased Products	No similar provision.	*Sec. 939.* Would amend the Farm Security Act of 2002 (P..L. 107-171) to add the Capitol Complex to the list of federal entities required to purchase biobased products.	
Small Business Bioproduct Marketing and Certification Grants.	No similar provision.	*Sec. 940.* Would require the Secretary of Agriculture to create a competitive grant program to support certification and marketing of biobased products by small firms. The grants would require a 50% match and would not exceed $100,000.	
Regional Bioeconomy Development Grants	No similar provision.	*Sec. 941.* Would require the Secretary of Agriculture to create competitive grants to a regional bioeconomy development association, agricultural or energy trade association, or Land Grant institution to support coordination, education, and/or outreach to promote development of a regional bioeconomy for biobased products. The grants would require a 50% match and would not exceed $500,000.	

Provision	House	Senate	Comments
Preprocessing and Harvesting Demonstration Grants.	No similar provision.	*Sec. 942.* This provision would require the Secretary of Agriculture to create a competitive grant program to support agricultural producers in demonstrating cellulosic biomass innovations that produce ethanol, heat, electricity or other useful forms of energy. The grants would require a 20% match and the number of demonstration projects would limited to five per year.	
Education and Outreach	No similar provision.	*Sec. 943.* Would require the Secretary of Agriculture to establish a program of education and outreach on biobased fuels and biobased products that includes training and technical assistance for feedstock producers and public education and outreach for consumers.	
Reports	No similar provision.	*Sec. 944.* Would require the Secretary of Agriculture to report to Congress on the economic potential for widespread production of biobased products through 2025. Further, an analysis of economic indicators of the biobased economy would also be required.	
Wind	*Sec. 940.* Would authorize the wind energy RDD&C program at DOE. Covered activities would include low-speed wind, offshore wind, testing and verification, and distributed wind energy generation.	No similar provision.	
Geothermal	*Sec. 941.* Would authorize the geothermal energy RDD&C program at DOE. The program would focus on resource detection, decreasing drilling and maintenance costs, mineral production, and reservoir management.	No similar provision.	
Photovoltaic Demonstration Program	*Sec. 942.* DOE would be required to make grants to states to support solar photovoltaic demonstration projects, providing up to 40% of a project's costs (maximum $1 million). Also, DOE would be required to report to Congress on program costs and the amount of capacity installed.	No similar provision.	
Additional Programs	*Sec. 943.* DOE would be empowered to conduct programs on ocean and wave energy, and combinations of renewable energy technologies with one another and with other energy technologies. Also, DOE would be required to arrange with the National Academy of Sciences to conduct a study on renewable energy generation from the ocean, including energy from waves, tides, and currents, and from the variation in water temperature with ocean depth (ocean thermal energy). Additionally, DOE	*Sec. 936.* DOE would be authorized to conduct programs on ocean energy (including wave energy), on combinations of renewable energy technologies with one another and with other energy technologies, and on renewable energy technologies for cogeneration of hydrogen and electricity.	

Provision	House	Senate	Comments
	would be required to conduct an innovative program to put renewable energy equipment in state and local buildings, providing up to 40% of a project's incremental costs.		
Analysis and Evaluation	*Sec. 944.* DOE would be required to conduct analysis and evaluation in support of the programs under this subtitle. Up to 1% of the funds for this subtitle could be designated for these activities, including economic and technical analysis of renewable energy resources and potential and analysis of past performance in terms of technical advances and market penetration.	No similar provision.	
Authorization of Appropriations	*Sec. 945.* Funding for DOE renewable energy programs would be authorized for five fiscal years. Also, specific authorizations would be provided for bioenergy, concentrating solar power, and public buildings. Funding for Renewable Support and Implementation would be excluded.	*Sec. 931.* Funding for DOE renewable energy, bioenergy, and concentrating solar power programs would be authorized for three fiscal years.	
Hydrogen Intermediate Fuels Program	No comparable provision.	*Sec. 933.* The Secretary of Energy, in coordination with the Secretary of Agriculture, would be required to demonstrate the conversion of ethanol or other renewable fuels into hydrogen for transportation applications. A total of $5 million would be authorized for the program.	

Nuclear Energy

Provision	House	Senate	Comments
Definition of Junior Faculty	*Sec. 946.* For the purpose of receiving grants under Section 949, junior faculty members would be defined as having held doctorates less than 10 years.	No provision.	
Nuclear Energy Programs	*Sec. 947.* DOE would be required to conduct nuclear energy research, development, demonstration, and commercial application programs, including DOE nuclear R&D infrastructure support. Annual performance reports on the programs must be submitted to Congress.	*Sec. 946.* DOE would be required to carry out existing nuclear R&D programs on advanced nuclear concepts, improvements in existing reactors, deployment of advanced versions of today's commercial reactors ("Nuclear Power 2010"), advanced reactor technologies ("Generation IV"), and nuclear hydrogen	

Provision	House	Senate	Comments
		production. A strategy for managing nuclear research facilities and infrastructure would also be mandated.	
Advanced Fuel Recycling Program	*Sec. 948.* DOE would be required to conduct a program on advanced technologies for the reprocessing of spent nuclear fuel. The technologies should be resistant to nuclear weapons proliferation and support alternative spent fuel disposal strategies and advanced reactor concepts.	*Sec. 947.* Similar provisions.	DOE is currently implementing the Advanced Fuel Cycle Initiative without a specific funding authorization. Spent fuel recycling or reprocessing involves the extraction of plutonium and uranium from spent nuclear fuel for use in new fuel. Supporters contend that it could extend domestic energy supplies and reduce the hazard posed by nuclear waste, while opponents are concerned that the extracted plutonium could be used for weapons.
University Nuclear Science and Engineering Support	*Sec. 949.* DOE would be required to support human resources and infrastructure in nuclear science and engineering and related fields. The program would include fellowship and faculty assistance programs and support for fundamental and collaborative research. The program would also be authorized to help convert research reactors to low-enriched fuels, support training in reactor relicensing and upgrading, and provide funding for research reactor improvements. DOE funding for research projects could be used for some of the operating costs of research reactors used in those projects.	*Sec. 948.* Similar provisions, plus a fellowship and visiting scientist program similar to House *Sec. 950.*	This section would add new statutory requirements to the existing DOE University Reactor Fuel Assistance and Support Program.
University-National Laboratory Interactions	*Sec. 950.* DOE would be required to conduct a nuclear science and technology fellowship program for university professors to spend sabbaticals at National Laboratories and a visiting scientist program to allow National Laboratory staff to spend time in university nuclear departments.	Included in *Sec. 948.*	
Nuclear Power 2010 Program	*Sec. 951.* DOE would be required to carry out the existing Nuclear Power 2010 Program to encourage deployment of new commercial reactors as soon as feasible.	Included in *Sec. 946.*	

Provision	House	Senate	Comments
Generation IV Nuclear Energy Systems Initiative	*Sec. 952.* DOE would be required to carry out the existing Generation IV Nuclear Energy Systems Initiative, which supports development of advanced concepts that could replace existing commercial reactor technology. The program would have to include proliferation-resistant advanced reactor designs that, in comparison with existing reactors, would have higher efficiency, lower cost, improved safety, and lower rates of high-level waste production.	Included in *Sec. 946*.	
Infrastructure and Facilities	*Sec. 953.* DOE would be required to operate and maintain infrastructure and facilities for nuclear energy programs.	Included in *Sec. 946*.	
Nuclear Energy Research and Development Infrastructure Plan	*Sec. 954.* DOE would have to develop an inventory of nuclear energy infrastructure and a priority list of needed improvements.	No inventory requirement, but *Sec. 946* requires a strategy for "making facility upgrades and modifications."	
Idaho National Laboratory Facilities Plan	*Sec. 955.* A comprehensive plan would be required for the facilities at Idaho National Laboratory, which DOE has designated as its lead laboratory for nuclear energy programs.	No specific mention of Idaho National Laboratory, but *Sec. 946* mandates a strategy for facilities of the Office of Nuclear Energy, Science, and Technology, which operates the lab.	
Authorization of Appropriations	*Sec. 956.* Funding for DOE nuclear energy programs in Sections 948-955 are authorized for FY2006-2010.	*Sec. 945.* Funding for DOE nuclear research programs would be authorized for FY2006-FY2008. None of the funds could be used for decommissioning the Fast Flux Test Facility at Hanford, Washington.	
Next Generation Nuclear Plant	*Sec. 957-961.* DOE would be required to design, build, and operate an advanced technology nuclear reactor by 2015. For development and design of the reactor, $150 million per year would be authorized for FY2006-FY2010. For construction, $500 million would be authorized, and such sums as necessary would be authorized for operation.	No provision in the R&D title (see comment).	This project is similar to the hydrogen production reactor authorized for construction at Idaho National Laboratory by **Secs. 651-652** of the House bill and **Secs. 631-635** of the Senate bill. (The project authorized in the Senate bill is also called the "Next Generation Nuclear Plant.") However, the project authorized by these sections of the House bill would not have to produce hydrogen or be built at Idaho National Laboratory.

Provision	House	Senate	Comments
Security of Nuclear Facilities	No provision.	*Sec. 949*. DOE would be required to conduct research on technologies for increasing nuclear plant security and protecting nuclear facilities from natural disasters.	
Alternatives to Industrial Radioactive Sources	No provision.	*Sec. 950*. DOE would be required to study industrial applications of large radioactive sources and establish a research program to develop alternatives.	Radioactive sources have been widely cited as a potential source of "dirty bomb" material, so development of alternative technologies could provide security benefits.

Fossil Energy—Research Programs

Provision	House	Senate	Comments
Enhanced Fossil Energy Research and Development Programs	*Sec. 962*. Specified priority programs would be spelled out to improve the efficiency, effectiveness and environmental performance of fossil energy production, upgrading, conversion, and consumption.	No similar provision.	
Fossil Research and Development	*Sec. 963*. The objective of the Fossil R&D program would be to reduce emissions from fossil fuel use such as mercury, fine particles, smog, and carbon dioxide using technologies including pre-combustion technologies.	No similar provision.	
Oil and Gas Research and Development	*Sec. 964*. Research programs would be focused on assisting small domestic producers of oil and gas, the extraction of methane hydrates, improving other extraction technologies, and reducing the costs of acquiring unconventional fuels.	*Sec. 952*. Similar provision except a report on natural gas and oil deposits in federal and state waters would be conducted by the Secretary of the Interior and submitted to Congress every 2 years. Also, an national center of excellence in clean energy and power generation would be established.	
Transportation Fuels	*Sec. 965*. The Secretary would conduct R&D projects on the commercialization of coal and natural gas to transportation fuel and indirect liquefaction of coal and biomass.	No similar provision.	
Fuel Cells	*Sec. 966*. The Secretary would conduct R&D on fuel cell commercialization including fuel cell proton exchange membrane technology.	No similar provision.	

Provision	House	Senate	Comments
Carbon Dioxide Capture Research and Development	*Sec. 967*. The Secretary would support a 10-year R&D program aimed at developing carbon dioxide capture technologies for pulverized coal combustion units. The program would focus on developing add-on carbon dioxide capture technologies, combustion technologies and increasing the efficiency of the overall combustion system. In addition, the Secretary would support a carbon sequestration program with the private sector through regional partnerships.	*Sec. 957*. Similar provision.	
Authorization of Appropriations	*Sec. 968*. Funds are authorized in general and for programs described in *Sec. 967* for years FY2006-FY2010.	*Sec. 951*. Funds would be authorized in general for years FY2006-FY2008 and specifically for programs described in *Sections 954, 955, and 956*.	
Western Michigan Demonstration Project	*Sec. 968A*. The EPA in consultation with the State of Michigan would conduct demonstration projects to assess the effect of transported ozone and ozone precursors in southwest Michigan.	No similar provision.	
Western Hemisphere Energy Cooperation	*Sec. 968B*. The Secretary would carry out a program to promote cooperation on energy issues among Western Hemisphere countries including, to the extent practicable, universities. Authorized funding would be for years FY2006-FY2010.	*Sec. 981*. Same provision, except slightly higher appropriations during FY2006-FY2008.	
Arctic Engineering Research Center	*Sec. 968C*. The Secretary of Energy in consultation with the Secretary of Transportation would establish the Arctic Engineering Research Center in Fairbanks, AK, to conduct R&D on improving the infrastructure in the Arctic region. A sum of $3 million would authorized and made available in a grant to a specified university each year for years FY2006-FY2011.	No similar provision.	
Barrow Geophysical Research Facility	*Sec. 968D*. The Secretary of Commerce in consultation with the Secretaries of Energy and the Interior and Director of the National Science Foundation and the Administrator of the EPA would establish the "Barrow Geophysical Research Facility in Barrow, Alaska. A sum of $61 million would be authorized to be appropriated.	No similar provision.	
Methane Hydrate Reseaerch	No similar provision.	*Sec. 953*. A methane hydrate research and development program would be established. A methane hydrate advisory panal would be set up and a study would be conducted by the National Research Council that would assess the R&D program. Funds would be authorized for years FY2006 - FY2010.	

Provision	House	Senate	Comments
Low-volume gas reservoir research program	No similar provision.	*Sec. 954.* A program would be established by the Secretary to maximize the productive capacity of marginal wells and reservoirs. Funds would be authorized for FY2006-FY2008.	
Research and development for coal mining technologies	No similar provision.	*Sec 955*. A program on coal mining technologies would be established.	
Coal and related technologies	Similar provision. (See *Sec. 441* of House bill.)	*Sec. 956*. In addition to the programs authorized under title IV, DOE would be required to conduct a program of technology research, development, and demonstration and commercial application for coal and power systems.	
Complex well technology testing facility	No similar provision.	*Sec. 958.* A Complex Well Technology Testing Facility would be established at the Rocky Mountain Oilfield Testing Center to increase range of extended drilling technologies.	
Coalbed Methane Study	No similar provision.	*Sec. 1305*. The Secretary, along with the National Academy of Science, and the Administrator of EPA would conduct a study on the effect of CBM production on surface and ground water resources including groundwater aquifers in several western states.	

Fossil Energy—Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Resources

Provision	House	Senate	Comments
Program Authority	*Sec. 969.* R&D would be directed toward the demonstration and commercial application of technology for ultra-deepwater oil and gas production, including unconventional oil and gas resources. The R&D program would be designed to benefit "small producers" and address environmental concerns. Complementary research would be carried out through DOE's National Energy Technology Laboratory.	No similar provision.	

Provision	House	Senate	Comments
Ultra-Deepwater and Unconventional Onshore Natural Gas and Other Petroleum Research	*Sec. 970.* The Secretary of Energy could contract with a consortium to recommend ultra-deepwater research projects and manage funding awarded under this program. The Secretary would make competitive awards to research consortia for conducting R&D on advanced technologies for recovering coalbed methane and other unconventional resources.	No similar provision.	
Additional Requirements for Awards	*Sec. 971.* The Secretary could reduce or eliminate the non-federal cost-share requirement for awards under this program, 2.5% of each award would be designated for technology transfer, and various additional award requirements would be stipulated.	No similar provision.	
Advisory Committees	*Sec. 972.* An Ultra-Deepwater Advisory Committee and an Unconventional Resources Technology Advisory Committee would be established.	No similar provision.	
Limits on Participation	*Sec. 973.* This section would establish criteria for foreign participation.	No similar provision.	
Sunset	*Sec. 974.* The authority in this part would terminate at the end of FY2014.	No similar provision.	
Definitions	Sec. 975. The terms deepwater, ultra-deepwater, unconventional oil and gas, independent producers of oil and gas, and others would be defined.	No similar provision.	
Funding	*Sec. 976.* The Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund would be established. Revenues derived from federal oil and gas leases, after all previously mandated distributions of those revenues had been made, would be deposited in the fund, up to $200 million annually during FY2005-FY2014. The Secretary of Energy could obligate money from the fund for programs in this part without an overall annual limit, although annual percentage allocations among the programs would be spelled out.	No similar provision.	

Department of Energy Management

Provision	House	Senate	Comments
Other Transactions Authority	*Sec. 1002.* This would amend Section 646 of the DOE Organization Act (42 U.S.C. 7256) to allow the Energy Secretary to enter into additional transactions furthering research, development, or demonstration without requiring that title	*Sec. 1011.* This would amend Section 646 of the DOE Organization Act (42 U.S.C. 7256 to allow the Energy Secretary to enter into other transactions in furtherance of research, development, or demonstration	

Provision	House	Senate	Comments
	to inventions be vested in the federal government as currently specified by Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908) or section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182).	functions not subject to Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908) that does not duplicate research, development, or demonstration being conducted under existing projects carried out by the Department.	
University Collaboration	*Sec. 1003*. The Secretary of Energy would report on the feasibility of promoting collaboration between Doctoral Research Extensive Universities in grants, contracts, and cooperative agreements made by the Secretary for energy projects.	*Sec. 1327*. The Energy Secretary would report on the feasibility of promoting collaborations between large institutions of higher education and small institutions of higher education through grants, contracts, and cooperative agreements made by the Secretary for energy projects.	
Small Business Advocacy and Assistance	No comparable section.	*Sec. 1007*. This section would require appointment of a small business advocate at each National Laboratory and research facility to increase the participation of small business concerns, including socially and economically disadvantaged small business concerns.	
Outreach	No comparable section.	*Sec. 1008*. DOE would ensure that each program authorized by this Act includes an outreach component to provide information to manufacturers, consumers, engineers, architects, builders, energy service companies, institutions of higher education, facility planners and managers, state and local governments, and other entities.	
Sense of Congress	*Sec. 1004*. This section would establish a sense of Congress that the Secretary of Energy should apply more stringent procurement and inventory controls to prevent waste of taxpayer funds, and the Department's Inspector General should continue to closely review the use of purchase cards.	No comparable provision.	

Electricity

Provision	House	Senate	Comments
Short Title	*Sec. 1201*. This title may be cited as the "Electric Reliability Act of 2005."	*Sec. 1201*. This title may be cited as the "Electricity Modernization Act of 2005."	

Reliability Standards

Provision	House	Senate	Comments
Electric Reliability Standards	*Sec. 1211*. This section would require the Federal Energy Regulatory Commission to promulgate rules within 180 days of enactment to create a FERC-certified electric reliability organization (ERO). Under this section, the ERO would develop and enforce reliability standards for the bulk-power system, including cybersecurity protection. New York would be allowed to establish reliability rules that would result in greater reliability within the state of New York. All ERO standards would be approved by FERC. Under this title, the ERO could impose penalties on a user, owner, or operator of the bulk-power system that violates any FERC-approved reliability standard. In addition, FERC could order compliance with a reliability standard and could impose a penalty if FERC finds that a user, owner, or operator of the bulk-power system has engaged in or is about to engage in a violation of a reliability standard. This provision would not give an ERO or FERC authorization to order construction of additional generation or transmission capacity.	*Sec. 1211*. Similar to House version. Definition of 'reliability standard' does not include cybersecurity protection. Includes definition of 'regional entity.' Would not limit the amount of dues, fees, and other charges the ERO could collect. Would not specifically allow New York to establish reliability rules that would result in greater reliability within the state of New York.	The North American Electric Reliability Council (NERC) currently has responsibility for reliability of the bulk power system. NERC has established reliability guidelines but has no enforcement authority. The Federal Power Act currently gives FERC jurisdiction over unbundled transmission and authority to regulate wholesale rates; however, no authority was provided to regulate reliability. **(See Appendix E for more information.)**

Transmission Infrastructure Modernization

Provision	House	Senate	Comments
Siting of Interstate Electric Transmission Facilities	*Sec. 1221.* The Secretary of Energy would be required to conduct a study of electric transmission congestion every three years. Based on the findings, the Secretary of Energy could designate a geographic area as being congested. Under certain conditions, FERC would be authorized to issue construction permits. Under proposed Federal Power Act (FPA) section 216(d), affected states, federal agencies, Indian tribes, property owners, and other interested parties would have an opportunity to present their views and recommendations with respect to the need for and impact of a proposed construction permit. However, there is no requirement for a specific comment period. New FPA section 216(e) would allow permit holders to petition in U.S. District Court to acquire rights-of-way through the exercise of the right of eminent domain. Any exercise of eminent domain authority would be considered to be takings of private property for which just compensation is due. New FPA section 216(g) does not state whether property owners would be required to reimburse compensation if the rights-of-way were transferred back to the owner. The Electric Reliability Council of Texas (ERCOT) would be exempted from this section. - An applicant for federal authorization to site transmission facilities on federal lands could request that the Department of Energy be the lead agency to coordinate environmental review and other federal authorization. Once a completed application is submitted, all related environmental reviews would be required to be completed within one year unless another federal law makes that impossible. FPA section 216(h) would give the Department of Energy new authority to prepare environmental documents and appears to give DOE additional decision-making authority for rights-of-way and siting on federal lands. This would appear to give DOE input into the decision process for creating rights-of-way. Review under section 503 of the Federal Land Policy and Management Act could be streamlined by relying on prior analyses. If a federal agency has denied an authorization required by a transmission or distributions facility, the denial could be appealed by the applicant or relevant state to the Secretary of Energy. The Secretary of Energy would be required to issue a decision within 90 days of the appeal's filing. States could enter into interstate compacts for the purposes of siting transmission facilities and the Secretary of Energy could provide technical assistance. The House-passed version of this section would not apply to the Electric Reliability Council of Texas (ERCOT).	*Sec. 1221.* Similar to House-passed H.R. 6. Would not exempt the Electric Reliability Council of Texas (ERCOT) from this section.	
Third-Party Finance	*Sec. 1222.* The Western Area Power Administration (WAPA) and the Southwestern Power Administration (SWPA) would be able to either continue to design, develop,	*Sec. 1222.* Similar provision.	Under current law the enabling statutes for power marketing administrations may

Provision	House	Senate	Comments
	construct, operate, maintain, or own transmission facilities within their regions or participate with other entities for the same purposes if: the Secretary of Energy designates the area as a National Interest Electric Transmission Corridor and the project would reduce congestion, or the project is needed to accommodate projected increases in demand for transmission capacity. The project would be required to be consistent with the needs identified by the appropriate Regional Transmission Organization or Independent System Operator. No more than $100 million from third-party financing may be used during fiscal years 2006 through 2015.		restrict third-party financing, construction, operation, and maintenance of transmission facilities.
Transmission System Monitoring	*Sec. 1223.* Within six months of enactment, the Secretary of Energy and the Federal Energy Regulatory Commission would be required to complete a study and report to Congress on what would be required to create and implement a transmission monitoring system for the Eastern and Western interconnections. The monitoring system would provide all transmission system owners and Regional Transmission Organizations real-time information on the operating status of all transmission lines.	*Sec. 1314.* Similar provision.	
Advanced Transmission Technologies	*Sec. 1224.* FERC would be directed to encourage deployment of advanced transmission technologies.	*Sec. 1223.* Similar provision.	
Electric Transmission and Distribution Programs	*Sec. 1225.* The Secretary of Energy, acting through the Director of the Office of Electric Transmission and Distribution, would be required to implement a program to promote reliability and efficiency of the electric transmission system. Within one year of enactment, the Secretary of Energy would be required to submit to Congress a report detailing the program's five-year plan. Within two years of enactment, the Secretary of Energy would be required to submit to Congress a report detailing the progress of the program. The Secretary of Energy would be directed to establish a research, development, demonstration, and commercial application initiative that would focus on high-temperature superconductivity. For this project, appropriations would be authorized for FY2006 through FY2010.	No similar provision.	
Advanced Power System Technology Incentive Program	*Sec. 1226.* A program would be established to provide incentive payments to owners or operators of advanced power generation systems. Eligible systems would include advanced fuel cells, turbines, or hybrid power systems. For FY2006 through FY2012 an annual appropriation of $10 million would be authorized.	*Sec. 1224.* Similar provision.	
Office of Electric Transmission and Distribution	*Sec. 1227.* This would amend Title II of the Department of Energy Organization Act (42 U.S.C. 7131 et seq) to establish an Office of Electric Transmission and Distribution. The Director of the office would, in part, coordinate and develop a strategy to improve electric transmission distribution, implement recommendations from the Department of	No provision.	

Provision	House	Senate	Comments
	Energy's National Transmission Grid Study, oversee research, development, and demonstration to support federal energy policy related to electricity transmission and distribution, and develop programs for workforce training and power transmission engineering.		

Transmission Operation Improvements

Provision	House	Senate	Comments
Open Nondiscriminatory Access	*Sec. 1231.* FERC would be authorized to require, by rule or order, unregulated transmitting utilities (power marketing administrations, state entities, and rural electric cooperatives) to charge rates comparable to what they charge themselves and require that the terms and conditions of the sales be comparable to those required of other utilities. This exemption could be revoked to maintain transmission system reliability. FERC would not be authorized to order states or municipalities to take action under this section if such action would constitute a private use under section 141 of the Internal Revenue Code of 1986. FERC may remand transmission rates to an unregulated transmitting utility if the rates do not comply with this section. FERC is not authorized to order an unregulated transmitting utility to join a Regional Transmission Organization or other FERC-approved independent transmission organization.	*Sec. 1231.* Similar provision.	Currently under the Federal Power Act (Section 201(f)), federal power marketing administrations, state entities, and rural electric cooperatives are not subject to FERC's ratemaking. In §1231, exemptions are established for utilities selling less than 4 million megawatt-hours of electricity per year, for distribution utilities, and for utilities that own or operate transmission facilities that are not necessary to facilitate a nationwide interconnected transmission system. This section is often referred to as "FERC-lite."
Regional Transmission Organizations (RTO)	*Sec. 1232.* This would establish a sense of Congress that utilities should voluntarily become members of regional transmission organizations.	*Sec. 1232.* FERC could encourage and approve the voluntary formation of RTOs, Independent System Operators (ISOs), or similar organizations. Each transmission organization would be required to report to FERC on a scheduled basis to ensure that the transmission organization's operations are cost effective and consistent with the FERC-approved tariffs and agreements. FERC would be required to	Currently, section 202(a) of the Federal Power Act directs FERC to promote and encourage regional districts for the voluntary interconnection and coordination of transmission facilities by public utilities and non-public utilities for the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy.

Provision	House	Senate	Comments
		perform an annual audit of each transmission organization.	
Regional Transmission Organization Applications Progress Report	*Sec. 1233.* FERC would be required to report to Congress within 120 days of enactment the status of all regional transmission organization applications.	No provision.	
Federal Utility Participation in Regional Transmission Organizations	*Sec. 1234.* Federal utilities (power marketing administrations or the Tennessee Valley Authority) would be authorized to participate in regional transmission organizations. A law allowing federal utilities to study formation and operation of a regional transmission organization would be repealed (16 U.S.C. 824n).	*Sec. 1233.* Similar provision.	
Standard Market Design	*Sec. 1235.* FERC's proposed rulemaking on standard market design (Docket No. RM01-12-000) would be remanded to FERC for reconsideration. No final rulemaking, including any rule or order of general applicability to the standard market design proposed rulemaking, could be issued before October 31, 2006, or could take effect before December 31, 2006. This section would retain FERC's ability to issue rules or orders and act on regional transmission organization or independent system operator filings.	*Sec. 1234.* FERC's proposed rulemaking on standard market design (Docket No. RM01-12-000 would be terminated and FERC would not be allowed to reissue the proposal.	On July 31, 2002, FERC issued a Notice of Proposed Rulemaking (NOPR) on standard market design (SMD). FERC's stated goal of establishing SMD requirements in conjunction with a standardized transmission service is to create "seamless" wholesale power markets that allow sellers to transact easily across transmission grid boundaries. The proposed rulemaking would create a new tariff under which each transmission owner would be required to turn over operation of its transmission system to an unaffiliated independent transmission provider (ITP). The ITP, which could be an RTO, would provide service to all customers and run energy markets. Under the NOPR, congestion would be managed with locational marginal pricing. The NOPR comment period originally was 75 days (ending November 15, 2002), but the comment period was extended to January 10, 2003, for the following issues: (1) market design for the Western Interconnection; (2) transmission pricing plan, including participant funding; (3) Regional State Advisory Committees and state participation; (4)

Provision	House	Senate	Comments
			resource adequacy; and (5) congestion revenue rights and transition issues. **(See Appendix F for more information.)**
Native Load Service Obligation	*Sec. 1236*. This section would amend the Federal Power Act to clarify that a load-serving entity is entitled to use its transmission facilities or firm transmission rights to serve its existing customers before it is obligated to make its transmission capacity available for other users. FERC would not be able to change any approved allocation of transmission rights by an RTO or ISO approved prior to January 1, 2005. This section contains language to allow public power utilities to enter into long-term contracts to serve their native load as well as giving them access to the transmission system.	*Sec. 1235*. Similar provision.	Currently Section 201 of the Federal Power Act gives FERC jurisdiction over "the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce." Section 205 of the Federal Power Act prohibits utilities from granting "undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage" (16 U.S.C. 824). The new language of this section is intended to clarify that reserving transmission for existing customers (native load) is not considered unduly discriminatory.
Study on the Benefits of Economic Dispatch	*Sec. 1237*. The Secretary of Energy, in consultation with the states, would be required to issue an annual report to Congress and the states on the current status of economic dispatch. Economic dispatch would be defined as "the operation of generation facilities to produce energy at the lowest cost to reliably serve consumers, recognizing any operational limits of generation and transmission facilities."	*Sec. 1316*. Similar provision.	
Protection of Transmission Contracts in the Pacific Northwest	No provision.	*Sec. 1236*. FERC could not require electric utilities in the Pacific Northwest to convert firm transmission rights to tradable or financial rights.	The area of the Pacific Northwest is the region defined in section 3 of the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C.839a) or a portion of a state included in the geographic area proposed for a Regional Transmission Organization in FERC Docket No. RT01-35.

Transmission Rate Reform

Provision	House	Senate	Comments
Transmission Infrastructure Investment	*Sec. 1241.* FERC would be required to establish a rule to create incentive-based transmission rates. FERC would be authorized to revise the rule. The rule would promote reliable and economically efficient electric transmission and generation, provide for a return on equity that would attract new investment in transmission, encourage use of technologies that increased the transfer capacity of existing transmission facilities, and would allow for the recovery of all prudently incurred costs that are necessary to comply with mandatory reliability standards. In addition, FERC would be directed to implement incentive rate-making for utilities that join a Regional Transmission Organization or Independent System Operator.	*Sec. 1241.* FERC would be required to establish a rule to create incentive-based transmission rates. FERC would be authorized to revise the rule. The rule would promote reliable and economically efficient electric transmission and generation, provide for a return on equity that would attract new investment in transmission, encourage use of technologies that increased the transfer capacity of existing transmission facilities, and would allow for the recovery of all prudently incurred costs that are necessary to comply with mandatory reliability standards and those that would result from transmission siting and construction on a National Interest Electric Transmission Corridor.	
Funding New Interconnection and Transmission Upgrades.	No provision.	*Sec. 1242.* FERC could approve a participant funding plan to allocate costs related to transmission construction or new generator interconnection as long as the resulting rates would be just and reasonable, not unduly discriminatory or preferential, and are otherwise consistent with sections 205 and 206 of the Federal Power Act.	

Amendments to PURPA

Provision	House	Senate	Comments
Net Metering and Additional Standards	*Sec. 1251.* For states that have not considered implementation and adoption of net metering standards, within three years of enactment, state regulatory authorities would be required to consider whether to implement net metering. Net metering service is defined as service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility (e.g., solar or small generator) and delivered to local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.	*Sec. 1251.* Similar Provision.	

Provision	House	Senate	Comments
Smart Metering	*Sec. 1252.* For states that have not considered implementation and adoption of a smart metering standard, state regulatory authorities would be required to initiate an investigation within one year of enactment, and issue a decision within two years of enactment, whether to implement a standard for time-based meters and communications devices for all electric utility customers. These devices would allow customers to participate in time-based pricing rate schedules. This section would amend the Public Utility Regulatory Policies Act of 1978 (PURPA) and would require the Secretary of Energy to provide consumer education on advanced metering and communications technologies, to identify and address barriers to adoption of demand response programs, and issue a report to Congress that identifies and quantifies the benefits of demand response. The Secretary of Energy would provide technical assistance to regional organizations to identify demand response potential and to develop demand response programs to respond to peak demand or emergency needs. FERC would be directed to issue an annual report, by region, to assess demand response resources.	*Sec. 1252.* Similar provision.	
Cogeneration and Small Power Production Purchase and Sale Requirements	*Sec. 1253.* Currently, §210 of PURPA requires utilities to purchase power from qualifying facilities and small power producers at a rate based on the utilities' avoided cost. This section would repeal the mandatory purchase requirement under §210 of PURPA for new contracts if FERC finds that a competitive electricity market exists and a qualifying facility has access to independently administered, auction-based day-ahead and real-time wholesale markets and long-term wholesale markets. Qualifying facilities would also need to have access to transmission and interconnection services provided by a FERC-approved regional transmission entity that provides non-discriminatory treatment for all customers. Ownership limitations under PURPA would be repealed.	*Sec. 1253.* Similar Provision.	The oil embargoes of the 1970s created concerns about the security of the nation's electricity supply and led to enactment of the Public Utility Regulatory Policies Act of 1978 (PURPA). For the first time, utilities were required to purchase power from outside sources. The purchase price was set at the utilities' "avoided cost," the cost they would have incurred to generate the additional power themselves, as determined by utility regulators. PURPA was established in part to augment electric utility generation with more efficiently produced electricity and to provide equitable rates to electric consumers. **(See Appendix G for more information.)**
Interconnection	*Sec. 1254.* Each state regulatory authority and each nonregulated utility would consider establishing an interconnection standard for on-site generating facilities wishing to be connected to the local distribution facilities, if it has not already done so. Consideration of the standard would be commenced not later than one year after enactment and completed not later than two years after the date of enactment.	*Sec. 1254.* Similar provision.	

Repeal of PUHCA

Provision	House	Senate	Comments
Short Title	*Sec. 1261.* This subtitle may be cited as the "Public Utility Holding Company Act of 2005."	Sec. 1271. Same.	
Definitions	*Sec. 1262.* This section would provide definitions for: affiliate, associate company, commission, company, electric utility company, exempt wholesale generator and foreign utility company, gas utility company, holding company, holding company system, jurisdictional rates, natural gas company, person, public utility, public-utility company, state commission, subsidiary company, and voting security.	*Sec. 1272.* Similar provision.	
Repeal of the Public Utility Holding Company Act of 1935	*Sec. 1263.* The Public Utility Holding Company Act of 1935 (PUHCA) would be repealed.	*Sec. 1273.* Similar provision.	In general, the Public Utility Holding Company Act of 1935 currently prohibits all holding companies that are more than twice removed from the operating subsidiaries. It also federally regulates holding companies of investor-owned utilities, and provides for Securities and Exchange Commission (SEC) regulation of mergers and diversification proposals. Registered holding companies of subsidiaries are required to have SEC approval prior to issuing securities; all loans and intercompany financial transactions are regulated by the SEC. A holding company can be exempt from PUHCA if its business operations and those of its subsidiaries occur within one state or within contiguous states. **(See Appendix H for more information.)**
Federal Access to Books and Records	*Sec. 1264.* Federal access to books and records of holding companies and their affiliates would be provided. Affiliate companies would have to make available to FERC books and records of affiliate transactions. Federal officials would have to maintain confidentiality of such books and records.	*Sec. 1274.* Similar provision.	Currently, registered holding companies and subsidiary companies are required to preserve accounts, cost-accounting procedures, correspondence, memoranda, papers, and books that the SEC deems necessary or appropriate in the public interest or for the protection of investors and consumers (15 U.S.C. 79o.).
State Access to Books and Records	*Sec. 1265.* A jurisdictional state commission would be able to make a reasonably detailed written request to a holding company or any associate company for access to specific books and records, which	*Sec. 1275.* Similar provision.	Currently under the Federal Power Act, state commissions may examine the books, accounts, memoranda, contracts, and records of a jurisdictional electric utility company, an exempt wholesale

Provision	House	Senate	Comments
	would be kept confidential. This section would not apply to an entity that is considered to be a holding company solely by reason of ownership of one or more qualifying facilities. Response to such a request would be mandatory. Compliance with this section would be enforceable in U.S. District Court.		generator that sells to such electric utility, and an electric utility company or holding company that is an associate company or affiliate of an exempt wholesale generator. In issuing such an order, a state commission currently is not required to specify which books, accounts, memoranda, contracts, and records it is requesting.
Exemption Authority	*Sec. 1266.* FERC would be directed to promulgate rules to exempt qualifying facilities, exempt wholesale generators, and foreign utilities, from the federal access to books and records provision (Section 1264).	*Sec. 1276.* Similar provision.	
Affiliate Transactions	*Sec. 1267.* FERC would retain the authority to prevent cross-subsidization and to assure that jurisdictional rates are just and reasonable. FERC and state commissions would retain jurisdiction to determine whether associate company activities could be recovered in rates.	*Sec. 1277.* Similar provision.	Currently, the Federal Power Act requires that jurisdictional rates are just and reasonable and prohibits cross-subsidization (16 U.S.C. 791a et seq.).
Applicability	*Sec. 1268.* Except as specifically noted, this subtitle would not apply to the U.S. government, a state or any political subdivision of the state, or foreign governmental authority operating outside the United States.	*Sec. 1278.* Similar provision.	
Effect on Other Regulations	*Sec. 1269.* FERC or state commissions would not be precluded from exercising their jurisdiction under otherwise applicable laws to protect utility customers.	*Sec. 1279.* Similar provision.	
Enforcement	*Sec. 1270.* FERC would have authority to enforce these provisions under sections 306-317 of the Federal Power Act.	*Sec. 1280.* Similar provision.	Currently, the Securities and Exchange Commission has authority to investigate and enforce provisions of the Public Utility Holding Company Act of 1935 (15 U.S.C. 79r).
Savings Provisions	*Sec. 1271.* Persons would be able to continue to engage in legal activities in which they have been engaged or are authorized to engage in on the effective date of this Act. This subtitle would not limit the authority of FERC under the Federal Power Act or the Natural Gas Act.	*Sec. 1281.* Similar provision.	

Provision	House	Senate	Comments
Implementation	*Sec. 1272.* Not later than 12 months after enactment, FERC would be required to promulgate regulations necessary to implement this subtitle and submit to Congress recommendations for technical or conforming amendments to federal law that would be necessary to carry out this subtitle.	*Sec 1282.* Similar Provision, but not later than four months after enactment.	
Transfer of Resources	*Sec. 1273.* The Securities and Exchange Commission would be required to transfer all applicable books and records to FERC. However, no time frame for transfer of books and records is provided. Currently, the Securities and Exchange Commission maintains books and records and regulates security transactions (15 U.S.C. 79 et seq.).	*Sec. 1283.* Similar Provision.	
Effective Date	*Sec. 1274.* Twelve months after enactment, this subtitle would take effect. This effective date would not apply to §1269 (effect on other regulations), §1270 (enforcement), §1271 (savings provisions), and §1272 (implementation).	*Sec. 1284.* Six months after enactment, this subtitle would take effect. This effective date would not apply to §1282 (implementation).	
Service Allocation	*Sec. 1275.* FERC would be required to review and authorize cost allocations for non-power goods or administrative or management services provided by an associate company that was organized specifically for the purpose of providing such goods or services. This section would not preclude FERC or state commissions from exercising their jurisdiction under other applicable laws with respect to review or authorization of any costs. FERC would be required to issue rules within six months of enactment to exempt from the section any company and holding company system if operations are confined substantially to a single state.	*Sec. 1285.* Similar provision.	
Authorization of Appropriations	*Sec. 1276.* Necessary funds to carry out this subtitle would be authorized to be appropriated.	*Sec. 1286.* Similar provision.	
Conforming Amendments to the Federal Power Act	*Sec. 1277.* The Federal Power Act would be amended to reflect the changes to the Public Utility Holding Company Act of 1935. (Current jurisdiction of the Securities and Exchange Commission under the Public Utility Holding Company Act of 1935 is	*Sec. 1287.* Similar provision.	

Provision	House	Senate	Comments
	referenced by 16 U.S.C. 825q; 16 U.S.C. 824(g)(5), and 16 U.S.C. 824m.)		

Market Transparency, Enforcement, and Consumer Protection

Provision	House	Senate	Comments
Market Transparency Rules	*Sec. 1281*. Within 180 days after enactment, FERC would be required to issue rules to establish an electronic system that provides information about the availability and price of wholesale electric energy and transmission services. FERC would exempt from disclosure any information that, if disclosed, could be detrimental to the operation of the effective market or jeopardize system security. FERC would be required to assure that consumers in competitive markets are protected from adverse effects of potential collusion or other anti-competitive behaviors that could occur as a result of untimely public disclosure of transaction-specific information. This section would not affect the exclusive jurisdiction of the Commodity Futures Trading Commission with respect to accounts, agreement, contracts, or transactions in commodities under the Commodity Exchange Act. FERC would not be allowed to compete with, or displace, any price publisher or regulated price publishers or impose any requirements on the publication of information.	*Sec. 1261*. FERC could issue rules to establish an electronic system that provides information about the availability and price of wholesale electric energy and transmission services. Any rule would exempt from disclosure any information that, if disclosed, could be detrimental to the operation of the effective market or jeopardize system security. FERC would be required to assure that consumers in competitive markets are protected from adverse effects of potential collusion or other anti-competitive behaviors that could occur as a result of untimely public disclosure of transaction-specific information. Any rule could not affect the exclusive jurisdiction of the Commodity Futures Trading Commission (CFTC) with respect to accounts, agreement, contracts, or transactions in commodities under the Commodity Exchange Act. Under a rule, if FERC requests information from a designated contract market, registered derivatives transaction execution facility, board of trade, exchange, or market involving a commodity which is under the jurisdiction of the CFTC, then FERC's request would be directed to the CFTC. FERC would not be allowed to compete with, or displace, any price publisher or regulated price publishers or impose any requirements on the publication of information. This section would not	

Provision	House	Senate	Comments
		apply to the area of the Electric Reliability Council of Texas.	
Market Manipulation	*Sec. 1282.* It would be unlawful to willfully and knowingly file a false report on any information relating to the price of electricity sold at wholesale or the availability of transmission capacity, with the intent to fraudulently affect data being compiled by a federal agency. It would be unlawful for any individual, corporation, or government entity (municipality, state, power marketing administration) to engage in round-trip electricity trading. Round-trip trading is defined to include contracts in which purchase and sale transactions have no specific financial gain or loss and are entered into with the intent to distort reported revenues, trading volumes, or prices.	*Sec. 1262.* Would prohibit entities from fraudulently reporting to a federal agency information relating to the price of electricity sold at wholesale or the availability of transmission capacity. - *Sec. 1263.* Would prohibit any entity, in connection with the purchase or sale of FERC jurisdictional electric energy or transmission services, from directly or indirectly using any manipulative or deceptive device or contrivance.	Currently, mail fraud laws in part apply to use of the mail for the purpose of executing, or attempting to execute, a scheme or artifice to defraud or for obtaining money or property by false or fraudulent pretenses, representations, or promises. Wire fraud statutes cover use of wire, radio, or television communication in interstate or foreign commerce to transmit or to cause to be transmitted any writings, signs, signals, pictures, or sounds for the purpose of executing a scheme or artifice to defraud or for obtaining money or property by means of false or fraudulent pretenses, representations, or promises.
Enforcement	*Sec. 1283.* The Federal Power Act would be amended to allow electric utilities to file complaints with FERC and to allow complaints to be filed against transmitting utilities. Criminal and civil penalties under the Federal Power Act would be increased. Criminal penalties would not exceed $1 million and/or five years' imprisonment. In addition, a fine of $25,000 could be imposed. A civil penalty not exceeding $1 million per day per violation could be assessed for violations of sections 211, 212, 213, or 214 of the Federal Power Act.	*Sec. 1264.* Similar provision.	Currently, criminal penalties may not exceed $5,000 and/or two years' imprisonment. An additional fine of $500 can be imposed. A civil penalty not exceeding $10,000 per day per violation may be assessed for violations of sections 211, 212, 213, or 214 of the Federal Power Act.
Refund Effective Date	*Sec. 1284.* Section 206(b) of the Federal Power Act would be amended to allow the effective date for refunds to begin at the time of the filing of a complaint with FERC but not later than five months after such a filing. If FERC does not make its decision within the time-frame provided, FERC would be required to state its reasons for not acting in the provided time-frame for the decision.	*Sec. 1265.* Similar provision.	Currently, refunds for rates that FERC finds to be unjust, unreasonable, unduly discriminatory, or preferential begin a minimum of 60 days after a complaint is filed (16 U.S.C. 824e(b)).

Provision	House	Senate	Comments
Refund Authority	*Sec. 1285.* Any entity that is not a public utility (including an entity referred to under § 201(f) of the Federal Power Act) and enters into a short-term sale of electricity would be subject to the FERC refund authority. A short-term sale would include any agreement to the sale of electric energy at wholesale that is for a period of 31 days or less. This section would not apply to electric cooperatives, or any entity that sells less than 8 million megawatt hours of electricity per year. FERC would have refund authority over voluntary short-term sales of electricity by Bonneville Power Administration if the rates charged are unjust and unreasonable. FERC would have authority over all power marketing administrations and the Tennessee Valley Authority to order refunds to achieve just and reasonable rates.	*Sec. 1266.* Any entity referred to under § 201(f) of the Federal Power Act which enters into a short-term sale of electricity through an organized FERC jurisdictional market would be subject to FERC refund authority. A short-term sale would include any agreement to the sale of electric energy at wholesale that is for a period of 48-hours or less. Like the House version, this provision would not apply to electric cooperatives, or any entity that sells less than 8 million megawatt hours of electricity per year. FERC would have refund authority over voluntary short-term sales of electricity by Bonneville Power Administration if the rates charged are unjust and unreasonable. The Senate provision specifies such a refund to be at rates that are higher than the highest just and reasonable rate for a short-term sale of electric energy charged by any other entity located in the same geographic market. FERC would have authority over all power marketing administrations and the Tennessee Valley Authority to order refunds to achieve just and reasonable rates.	Currently, Section 201(f) of the Federal Power Act exempts government entities from FERC rate regulation.
Sanctity of Contract	*Sec. 1286.* Upon determining that failure to take action would be contrary to protection of the public interest, FERC would be authorized to modify or abrogate any contract entered into after enactment of this section. FERC would not be able to abrogate or modify contracts that expressly provide for a standard of review other than the public interest standard.	*Sec. 1266.* Similar Provision, but less explicit than House version.	
Consumer Privacy and Unfair Trade Practices	*Sec. 1287.* The Federal Trade Commission would be authorized to issue rules to prohibit slamming and cramming. Slamming occurs when an electric utility switches a customer's electric provider without the consumer's knowledge. Cramming occurs when an electric utility adds additional services and charges to a customer's account without permission of the customer. If the Federal Trade Commission	*Sec. 1267.* Similar Provision.	

Provision	House	Senate	Comments
	determines that a state's regulations provide equivalent or greater protection, then the state regulations would apply in lieu of regulations issued by the Federal Trade Commission.		
Office of Consumer Advocacy.	No provision.	*Sec. 1268.* Would create an Office of Consumer Advocacy within the Department of Energy. The Office of Consumer Advocacy would represent residential and small commercial customers, who receive products or services from FERC jurisdictional public utilities or natural gas companies, at FERC hearings, in civil actions brought in connection with FERC actions, and at proceedings at other federal regulatory agencies and commissions.	
Authority of Court to Prohibit Persons from Serving as Officers, Directors, and Energy Traders	No provision.	*Sec. 1269.* The court would be allowed to prohibit any person who is found to have violated Section 222 of the Federal Power Act (Prohibition on Filing False Information) from acting as an officer or director of an electric utility or engaging in the business of purchasing or selling FERC jurisdictional electric energy or transmission services.	
Relief for Extraordinary Violations	No similar provision.	*Sec. 1270.* FERC would be given exclusive jurisdiction under the Federal Power Act to determine whether a requirement to make payments for power not delivered is not permitted or is otherwise unjust and unreasonable or contrary to the public interest. This section would apply to any contract that was entered into in the Western Interconnection prior to June 20, 2001. In addition, this section would apply only to proceedings in which there have been no final orders or determinations.	
Final Action on Refunds for Excessive Charges	No provision.	*Sec. 1333.* FERC would be required to conclude its investigation into the unjust or unreasonable charges incurred by California during the 2000-2001 electricity crisis as soon as possible and would be directed to	

Provision	House	Senate	Comments
		ensure that refunds FERC determines are owed to the State of California are paid to the state of California. FERC would be required to submit to Congress a report by December 31, 2005 describing the actions taken by FERC and timetables for further actions.	

Merger Reform

Provision	House	Senate	Comments
Merger Review Reform and Accountability	*Sec. 1291*. Within 180 days of enactment, the Secretary of Energy would be required to transmit to Congress a study on whether FERC's merger review authority is duplicative with other agencies' authority and that would include recommendations for eliminating any unnecessary duplication. FERC would be required to issue an annual report to Congress describing all conditions placed on mergers under section 203(b) of the Federal Power Act. FERC would also be required to include in its report whether such a condition could have been imposed under any other provision of the Federal Power Act.	No similar provision	
Electric Utility Mergers	*Sec. 1292*. The Federal Power Act would be amended to give FERC review authority for transfer of assets valued in excess of $10 million. FERC would be required to give state public utility commissions and governors reasonable notice in writing. FERC would be required to establish rules to comply with this section. This section would take effect 12 months after enactment.	*Sec. 1288*. Similar to House version but would also apply to the purchase, lease, or acquisition of an existing generating facility that has a value in excess of $10 million and is used to generate electricity for FERC jurisdictional interstate wholesale sales. In addition to the House requirements, the Senate version would require FERC to determine that the proposed transaction would not result in harmful cross-subsidization with a non-utility associate company. This section would take effect 6 months after enactment.	Currently, under Section 203(a) of the Federal Power Act, FERC review of asset transfers applies to transactions valued at $50,000 or more (16 U.S.C. 824b).

Definitions

Provision	House	Senate	Comments
Definitions	*Sec. 1295.* The definitions for "electric utility" and "transmitting utility" under the Federal Power Act would be amended. Definitions for the following terms would be added to the Federal Power Act: electric cooperative, regional transmission organization, independent system operator, and commission.	*Sec. 1291*. Similar provision except that the term 'commission' is not defined in this section.	
Conforming Amendments	*Sec. 1297.* The Federal Power Act would be amended to conform with this title.	*Sec. 1295*. Similar provision.	
Energy Policy and Conservation Technical Correction.	No provision.	*Sec. 1292*. Section 609(c)(4) of the Public Utility Regulatory Policies Act of 1978 would be amended to conform with this title.	

Economic Dispatch and Other Electricity

Provision	House	Senate	Comments
Economic Dispatch	*Sec. 1298.* FERC would be directed to convene regional boards to study "security constrained economic dispatch." A member of FERC will chair each regional joint board that is to be composed of a representative from each state. Within one year of enactment, FERC would be required to submit a report to Congress on the recommendations of the joint regional boards. This section does not define "security constrained economic dispatch" but it generally means a dispatch system that ensures that all normal and contingency limits of the system are simultaneously met under a base case with one contingency (i.e, the loss of a critical network element, N-1 security analysis).	*Sec. 1316.* The Secretary of Energy would be directed, in coordination and consultation with the states, to conduct a study of economic dispatch. This section would define economic dispatch to mean the operation of a generation facility to produce energy at the lowest cost in order to reliably serve consumers, taking into consideration any operational limit of a generation or transmission facility. Not later than 90 days after enactment, and annually thereafter, the Secretary of Energy must submit the results of the study to Congress.	

Provision	House	Senate	Comments
Training Guidelines for Electric Energy Industry Personnel	No similar provision.	*Sec. 1104.* The Secretary of Labor, in consultation with the Secretary of Energy and in conjunction with industry personnel, would be required to develop electric industry personnel training guidelines.	
National Power Plant Operations Technology and Educational Center	No similar provision.	*Sec. 1107.* The Secretary of Energy would be required to support the establishment of a National Power Plant Operations Technology and Educational Center at an institution of higher education to train and educate operators and technicians for the electric power industry.	
Interagency Review of Competition in the Wholesale and Retail Markets for Electric Energy	No similar provision.	*Sec. 1315.* An interagency task force would be created to study wholesale and retail competition in the electric industry. The task force would be required to report its findings to Congress within one year of enactment.	
Study of Rapid Electrical Grid Restoration	No similar provision.	*Sec. 1317.* The Secretary of Energy would be required to conduct a study of the benefits of using mobile transformers and mobile substations to rapidly restore electrical service to areas subjected to blackouts. A Report to Congress on the results of the study would be required to be submitted within one year of enactment.	
Study of Distributed Generation	No similar provision.	*Sec. 1318.* The Secretary of Energy, in consultation with Federal Energy Regulatory Commission, would be required to conduct a study of the potential benefits of cogeneration and small power production. Within 18 months of enactment, the Secretary of Energy would be required to submit the results of the study to the President and to Congress.	
Effect of Electrical Contaminants on Reliability of Energy Production Systems	No similar provision.	*Sec. 1331.* Not later than 180 days after the date of enactment of this Act, the Secretary of Energy would be required to enter into a contract with the National Academy of Sciences under which the National	Electronic circuitry manufacturing has switched from using a lead-tin compound for coatings and soldering to coatings of pure tin. Pure tin is capable of forming small, needle-like

Provision	House	Senate	Comments
		Academy of Sciences would determine the effect that electrical contaminants (such as tin whiskers) could have on the reliability of energy production systems, including nuclear energy.	formations (called tin whiskers) on the surface of the tin coatings. Short-circuits could be created between the tin whiskers in tightly spaced electronic circuitry.

Energy Tax Incentives

Provision	House	Senate	Comments
Short Title	*Sec. 1300.* This title may be cited as the "Enhanced Energy Infrastructure and Technology Tax Act of 2005."	*Sec. 1500.* This title may be cited as the "Energy Policy Tax Incentives Act of 2005."	

Energy Infrastructure Tax Incentives

Provision	House	Senate	Comments
Natural Gas Gathering Lines Treated As 7-Year Property	*Sec. 1301.* The House bill would assign natural gas gathering lines a 7-year recovery period.	No provision.	Under IRC§168(e)(3) and IRS regulations, the recovery period for natural gas gathering lines could be either 7 or 15 years, depending upon whether they are classified as production or transportation equipment. Recent court cases reflect the ambiguous tax treatment. Natural gas pipelines have a recovery period of 15 years, while natural gas distribution lines have a recovery period of 20 years.
Natural Gas Distribution Lines Treated As 15-Year Property	*Sec. 1302.* As noted above, natural gas distribution lines currently are assigned a 20-year recovery period. The House bill would reduce this to 15 years.	*Sec. 1515.* The proposal establishes a statutory 15-year recovery period and a statutory class life of 35 years for natural gas distribution lines placed in service before January 1, 2008.	Natural gas distribution pipelines are currently assigned a 20-year recovery period and a class life of 35 years.

Provision	House	Senate	Comments
Underground Natural Gas Storage Property	No provision.	*Sec. 1541.* Senate H.R. 6 provides for a 10-year recovery period for underground natural gas storage facilities.	Current law provides for a 15 year recovery period.
Electric Transmission Property Treated As 15-Year Property	*Sec. 1303.* This section would shorten the recovery period for transmission property from 20 to 15 years.	No provision.	The current law recovery period for transmission property is generally 20 years. The House provision is intended to create incentives to increase investment in transmission assets.
Net-Operating Losses	No provision.	*Sec. 1546.* Transmission companies would be allowed to carry-backward any operating losses if the added profits therefrom would be used either to add transmission or pollution control equipment.	Under current law, net-operating losses may be carried back 2 years or forward 20 years.
Sale or Disposition of Transmission Assets to Implement Federal Energy Regulatory Commission (FERC) Restructuring Policy	No provision.	*Sec. 1506.* This section would extend the deferral provision to sales or dispositions to an independent transmission company prior to January 1, 2008.	Gain from the sale or disposition of transmission assets before December 31, 2006, is recognized over 8 years rather than in the year of the capital gain is realized (thus allowing the tax liability to be spread over 8 years) as long as new utility property is purchased withing 4 years.
Expansion of Amortization of Certain Atmospheric Pollution Control Facilities in Connection With Plants First Placed-in-Service After 1975	*Sec. 1304.* This section would repeal the condition that only pollution control equipment installed on pre-1976 plants qualifies for 60-month amortization.	*Sec. 1547.* Investment in pollution control equipment would qualify for a 15% investment tax credit. Small ethanol plants—those that produce less than 1 million gallons of ethanol annually—would be excluded.	Under current law, pollution control equipment can also qualify for a type of accelerated depreciation if it is installed in connection with older facilities (essentially a plant or equipment placed into service before January 1, 1976). Such equipment can be amortized over five years instead of the standard 15- or 20-year period applicable to conventional generating equipment and instead of the same 15- or 20-year period applicable to pollution control equipment installed in connection with newer plants. Amortization is a method of depreciation that recovers the total cost basis evenly over the recovery period. More specifically, the amortization period is five years and if the pollution control equipment has a useful life of 15 years or less, 100% of the cost can be amortized over five years. (If the equipment has a useful life greater than 15 years,

Provision	House	Senate	Comments
			then the proportion of the costs that can be amortized is less than 100%.) Pollution control equipment added to "newer" plants (those placed in service after 1975) is depreciated using the same General Depreciation System (GDS) methods that apply to other electric generating equipment on the date they are placed in service (15- or 20-year recovery period using the 150% declining balance method).
Modification of Credit for Producing Fuel From a Nonconventional Source	*Sec. 1305.* H.R. 6 would make the §29 tax credit part of the general business tax credit under IRC§38.	No provision.	Current IRC §29 provides a $3 tax credit (in 1979 dollars) for each barrel (or equivalent) of fuels produced or mined from unconventional sources, and sold to independent parties in an arms-length transaction. For most fuels, the credit ended in 2002 for facilities and mines placed in service by the end of 1992; for biogases and synfuels, the credit ends in 2007 for facilities placed in service by June 30, 1998. No credit is available for facilities placed in service after these cut-off dates (which apply to different fuels). The credit is phased out when oil prices exceed certain limits (currently $49.75/barrel). The credit in 2004 was $6.56/barrel of oil equivalent, which is equivalent to $1.16/mcf of gas. Most of the benefits from this tax credit have accrued to coalbed methane and to other unconventional fossil gases, and more recently to coal, due to the way synfuels are treated (see CRS Report 97-679 E). The §29 tax credit is limited to the excess of the regular tax over the tentative minimum tax, and it may not be carried forward or back to other taxable years.
Modifications to Special Rules for Nuclear Decommissioning Costs	*Sec. 1306.* The House provision would repeal the requirement that a utility has to be regulated under cost-of-service rate regulations in order to qualify for this deduction. Thus, unregulated utilities would also qualify. The bill also would repeal the current	No provision.	Contributions into a nuclear decommissioning fund are tax deductible in the year made and as long as the utility is regulated. Deductions are limited to the lesser of the amounts relating to the cost of service regulations or the IRS's ruling amount. Moneys

Provision	House	Senate	Comments
	limitations regarding the magnitude of the decommissioning fund accumulations—a utility could make contributions into the fund in excess of the maximum amount established by the Internal Revenue Service in certain circumstances.		withdrawn from the fund are taxable as income, and expenditures for decommissioning are deductible as costs on an accrual basis. Decommissioning funds may be transferred tax-free in connection with a change in ownership of the nuclear facility to which they relate, but the transferee generally has to be a regulated utility eligible to maintain such a fund. In a deregulated and restructured industry, ambiguity regarding the tax treatment of decommissioning fund transfers may make such transactions taxable [IRC§468A].
Credit for Electricity Produced from Advanced Nuclear Power Facilities	No provision.	*Sec. 1507*. The Senate version of H.R 6 permits a taxpayer producing electricity at a qualifying advanced nuclear power facility to claim a credit equal to 1.8¢ per kilowatt-hour of electricity produced for the eight-year period starting when the facility is placed in service. Up to 6,000 megawatts of new nuclear capacity could qualify for the credit.	No such credit is provided under current law.
Treatment of Income of Electric Cooperatives	No provision.	*Sec.1505*. Several special rules create favorable tax treatment for rural electric cooperatives, but this favorable tax treatment ends on December 31, 2006. The Senate bill would permanently extend favorable tax treatment from (1) open access electric energy transmission or distribution services, (2) any nuclear decommissioning transaction, (3) any asset exchange or conversion transaction for purposes of the 85% test under section 501(c)(12), and (4) load loss transactions, which would be treated as member income in determining whether a rural electric cooperative satisfies the 85% test.	In general, cooperatives are exempt from tax although patrons must pay tax on any distributed profits as "patronage dividends." Rural electric cooperatives are also exempt from tax and patrons do not have to report dividends, provided that no more than 15% of the cooperative's income is from services to nonmembers (at least 85% of the coop's income must come from the sale of electricity to members).
Arbitrage Rules Not to Apply to Prepayment of Natural Gas	*Sec. 1307*. Under the House bill, state and local governments would be exempt from the arbitrage restrictions of the tax-exempt bond rules, thus allowing (with some restrictions) such proceeds to	No provision.	State and local governments currently cannot use the proceeds of tax-exempt bond issues to profit from arbitrage (by pre-payment) on natural gas

Provision	House	Senate	Comments
	purchase a supply of natural gas for customers of a public utility.		purchases (IRC §148)—bond proceeds must be used to finance qualifying public-purpose projects.
Determination of Small Refiner Exception to Oil Depletion Allowance	*Sec. 1308.* Under H.R. 6, the 50,000 barrel daily limit would be raised to 75,000, and it would apply to the average over an entire taxable year, rather than on any day during the taxable year.	No provision.	The percentage depletion allowance for oil and gas is 15% of revenues and is available only to independent producers and royalty owners. Independent producers can claim a higher depletion rate (up to 25%, rather than the normal 15%) for up to 15 barrels per day (bpd) of oil (or the equivalent amount of gas) from marginal wells ("stripper" oil/gas and heavy oil). For purposes of percentage depletion, an independent oil producer is a) one that, on any given day, does not refine more than 50,000 barrels of oil, and b) does not have a retail operation grossing more than $5 million/year [IRC§613A(d)].

Conservation and Energy Efficiency Provisions

Provision	House	Senate	Comments
Credit for Residential Energy Efficiency Property	*Sec. 1311.* Under the House bill, a 15% tax credit (up to $2,000) would be provided for residential applications of solar technologies to heat water, rooftop photovoltaics to generate electricity, and fuel cell property. The credit for fuel cell property would be limited to $1,000/kilowatt (KW) of capacity.	*Sec. 1527.* The Senate bill provides a 30% personal tax credit for the purchase of qualified photovoltaic property, solar water heating property, and fuel cell power plants that are used exclusively for purposes other than heating swimming pools and hot tubs. The maximum credit for each solar-based system would be $2,000. The credit for any fuel cell may not exceed $500 for each 0.5 KW of capacity.	There are no tax subsidies, under current law, for residential applications of solar, wind, or other renewable energy technologies. The 1978 energy tax credits for solar and wind established under President Carter's National Energy Act expired in 1985.
Credit for Business Installation of Qualified Fuel Cells	*Sec. 1312.* Under H.R. 6, a 15% tax credit would be provided for business investments in stationary fuel cells, subject to a maximum credit of $1,000/KW of capacity.	*Sec. 1528.* The proposal provides a 30% business energy credit for the purchase of qualified fuel cell power plants for businesses (not to exceed $500 for each 0.5 KW of capacity), and a 10% credit for the purchase of qualifying stationary microturbine power plants (not to exceed 10% of the basis of the property or $200 for	Various business tax subsidies are available to renewable energy technologies under current law [IRC §45,46,48, 613(e)]. A 10% tax credit is provided for investment in solar equipment 1) to generate electricity (including photovoltaic systems), 2) to heat or cool a structure, and 3) for process heat.

Provision	House	Senate	Comments
		each KW). A qualified fuel cell power plant is an integrated system comprising a fuel cell stack assembly and associated balance of plant components that converts a fuel into electricity using electrochemical means, and which has an electricity-only generation efficiency of greater than 30% and generates at least 0.5 KW of electricity. A qualified stationary microturbine power plant is an integrated system comprised of a gas turbine engine, a recuperator or regenerator, a generator or alternator, and associated balance of plant components which converts a fuel into electricity and thermal energy.	Geothermal energy reservoirs qualify for a 15% depletion allowance. Electricity from wind technologies receives the §45 tax credit. The recovery period for renewable technologies used to generate electricity is five years. Fuel cells do not qualify for tax subsidies.
Business Solar Investment Tax Credit	No provision.	*Sec. 1529.* The tax title would increase the investment tax credit for solar property used in a business from 10% to 30% for 2006 through 2011.	Current law provides a 10% tax credit for investment in solar equipment used to 1) generate electricity (including photovoltaic systems), 2) used to heat or cool a structure, and 3) used for process heat. Geothermal energy equipment also qualifies for the 10% investment tax credit, and geothermal reservoirs qualify for a 15% depletion allowance.
Deduction for Energy Efficient Commercial Buildings	No provision.	*Sec. 1521.*Expenditures on energy efficiency property made with respect to a commercial building are tax deductible (rather than depreciable), subject to a limit of $2.25 per square foot. The property must reduce the building's annual energy costs by at least 50% as compared to the standards for a reference building established by a professional engineering body. Commercial buildings include residential rental property. The Senate bill allows designers of commercial buildings to claim this deduction if the energy efficiency items are installed in the buildings of nontaxable entities.	No special deduction is currently provided for expenses incurred for energy-efficient commercial building property. Energy efficiency property that is installed as part of a structure is depreciable over 39 years—it has the same recovery period as the structure.
Deduction for More Energy-Efficient Heating and Cooling Equipment Used in Business	No provision.	*Sec. 1523.* The proposal provides (1) a $150 deduction for each advanced main air circulating fan or a Tier 1 natural gas, propane, or oil water heater, and (2) a $900 deduction for more energy efficient electric heat pump water heaters or geothermal heat pump. The	No special deduction is currently provided for expenses incurred for energy-efficient commercial building property. Energy efficiency property that is installed as part of a structure is depreciable over 39

Provision	House	Senate	Comments
		proposal also provides a deduction of as high as $6,000 for energy efficient residential rental building property, depending on the percent reduction in energy costs relative to the original condition of the building. No deduction is allowed in the case of energy cost savings of less than 20%.	years—it has the same recovery period as the structure.
Credit for More Energy-Efficiency Heating and Cooling Equipment Used in Homes	No provision.	*Sec. 1524.* The proposal provides (1) a $50 tax credit for each advanced main air circulating fan or a Tier 1 natural gas, propane, or oil water heater, and (2) a $300 credit for more energy efficient electric heat pump water heaters or geothermal heat pump. The proposal also provides a credit of as high as $2,000 for energy efficient residential rental building property, depending on the percent reduction in energy costs relative to the original condition of the building. No deduction is allowed in the case of energy cost savings of less than 20%.	This incentive is the residential equivalent to the one under *Sec. 1523* that applies to businesses. No special tax credit is currently provided for expenses incurred for energy-efficient residential building property. Any subsidies provided by utilities, however, may be excluded from gross income under IRC §136.
Credit for Energy Efficiency Improvements to Existing Homes	*Sec. 1317.* Under H.R. 6, a tax credit of 20% would be provided for expenditures on energy efficient envelope components—more energy-efficient insulation, windows/doors, roofs, and structural envelope components—retrofitted to existing homes that reduce heat loss (in winter) or heat gain (in summer) for a dwelling unit. The maximum lifetime credit per dwelling unit would be $2,000. Qualifying units and materials must meet energy efficiency guidelines for such components established by the International Energy Conservation Code.	No provision.	No special tax treatment is accorded homeowners for purchases of materials and property that enhances the energy efficiency of a personal residence. Subsidies provided by utilities can be excluded from gross income (IRC§136). The 1978 Energy Tax Act—part of President Carter's National Energy Act—provided conservation tax credits for certain types of energy efficiency retrofits (insulation, storm windows and doors, weatherstripping), but these expired in 1985.
Credit for Construction of Energy-Efficient New Homes	No provision.	*Sec. 1522.* The proposal would provide a credit to an eligible contractor of an amount equal to the aggregate adjusted bases of all energy-efficient property installed in a qualified new energy-efficient home during construction. The credit cannot exceed $1,000 for a new home that has a projected level of annual heating and cooling costs that is 30% less (or $2,000 for costs of 50% less) than a comparable dwelling constructed in	Under current law, a taxpayer may exclude from income the value of any subsidy provided by a public utility for the purchase or installation of an energy conservation measure. An energy conservation measure means any installation or modification primarily designed to reduce consumption of electricity or natural gas or to improve the management of

Provision	House	Senate	Comments
		accordance with the standards of chapter 4 of the 2003 International Energy Conservation Code as in effect (including supplements) on the date of enactment, and any applicable federal minimum efficiency standards for equipment.	energy demand with respect to a dwelling unit (IRC § 136).
Credit for Energy Efficient Appliances	No provision.	*Sec. 1526.* Increased production of more energy-efficient dishwashers, clothes washers and refrigerators (above a base production level) would qualify for tax credits ranging from $50 to $100 depending upon type of appliance, year of production, and its energy-efficiency. The total credit for any manufacturer is subject to certain limits, including a cumulative lifetime credit limit per manufacturer.	Under current law, a taxpayer may exclude from income the value of any subsidy provided by a public utility for the purchase or installation of an energy conservation measure. An energy conservation measure means any installation or modification primarily designed to reduce consumption of electricity or natural gas or to improve the management of energy demand with respect to a dwelling unit (IRC § 136).
Combined Heat and Power Systems ("CHIPS")	No provision.	*Sec. 1525.* Combined heat and power systems of at least 15 MW, and that meet certain efficiency standards, would be treated as business energy property, thus qualifying for the 10% investment tax credit. Additionally, the proposal provides that systems whose fuel source is at least 90% bagasse and that would qualify for the credit but for the failure to meet the efficiency standard are eligible for a credit that is reduced in proportion to the degree to which the system fails to meet the efficiency standard.	No special tax subsidies are provided to combined heat and power (cogeneration) systems; the recovery period for purposes of depreciation is generally 15 years.
Advanced Technology Vehicle Credit	*Sec. 1316.* The House bill would provide a tax credit for advanced lean-burn technology vehicles ranging from a base of $500 to $3,000 depending on fuel efficiency, and an additional tax credit of $250-$550 depending on estimated lifetime fuel savings.	*Sec. 1531.* The proposal would provide a credit for the purchase of a new qualified fuel cell motor vehicle, a new qualified hybrid motor vehicle, and a new qualified alternative fuel motor vehicle. The fuel cell vehicle credit ranges from $8,000 to $40,000 depending upon the weight class of the vehicle. In the case of automobiles or light trucks, an additional credit amount that depends upon the rated fuel economy of the vehicle compared to a base fuel economy. The credit for the purchase of a hybrid vehicle is the sum of two components: a fuel economy credit amount (which	Under current law (IRC§179A), the incremental costs of an alternative-fuel vehicle are tax deductible, up to $2,000 for a car, and up to $50,000 for a truck or van (depending on weight class). This applies to vehicles powered by LPG, LNG, CNG, hydrogen, E85 and M85. The credit is reduced by 25% in 2006, and is not available for purchases after December 31, 2006. No credit is currently available for advanced lean burn vehicles, which are advanced technology vehicles that

Provision	House	Senate	Comments
		ranges from $400 to $2,400 and varies with the rated fuel economy of the vehicle compared to a 2002 model year standard) and a conservation credit based on the estimated lifetime fuel savings of a qualifying vehicle compared to a comparable 2002 model year vehicle. The credit for the purchase of a new alternative fuel vehicle would be 50% of the incremental cost of such vehicle, plus an additional 30% if the vehicle meets certain emissions standards, but not more than between $4,000 and $32,000 depending upon the weight of the vehicle.	are highly fuel efficient and generate lower emissions than standard internal combustion engines.
Credit for Electric Vehicles	No provision.	*Sec. 1532.* The proposal would repeal the phase-out of the credit under present law. The proposal also modifies present law to provide for a credit equal to the lesser of $1,500 or 10% of the manufacturer's suggested retail price of certain vehicles that conform to the Motor Vehicle Safety Standard 500. For all other electric vehicles, a new tax credit would be provided, which ranges from $4,000 to $40,000.	Current law provides a 10% tax credit for the cost of a qualified electric vehicle, up to a maximum credit of $4,000. The full amount of the credit is available for purchases prior to 2006. The credit is reduced to 25% of the otherwise allowable amount for purchases in 2006 and is unavailable for purchases after December 31, 2006. A qualified electric vehicle generally is a motor vehicle that is powered primarily by an electric motor drawing current from rechargeable batteries, fuel cells, or other portable sources of electrical current.
Credit for Installation of Alternative Fuels Fueling Stations	No provision.	*Sec. 1533.* The Senate bill would provide a 50% tax credit, through 2009 (2014 for hydrogen fuels), for the costs of clean-fuel refueling equipment (subject to a maximum tax credit of $30,000). It adds "residential clean-refueling property" to qualifying property, subject to a maximum credit of $1,000. The definition of alternative fuel would include fuel that is at least 20% biodiesel.	Current tax law allows a maximum lifetime tax deduction, up to $100,000, for the costs of alternative fuel refueling property (excluding installation costs). This deduction expires on January 1, 2007.
Excise Tax Credits for Alternative Fuels	No provision.	*Sec.1534*. The proposal would create two new excise tax credits, the alternative fuel credit and the alternative fuel mixture credit. The credits would be allowed against section 4041 liability. The alternative fuel credit would be 50¢ per gallon of alternative fuel or gasoline gallon equivalents of non-liquid alternative fuel	The Senate bill would apply the same tax treatment—an excise tax credit, rather than an excise tax exemption—to alternative special motor fuels as is currently applied to ethanol fuel blends. (See: *Alcohol Fuels Tax Incentives.* CRS Report RL32979.)

Provision	House	Senate	Comments
		sold by the taxpayer for use as a motor fuel in a highway vehicle. The alternative fuel mixture credit would be 50¢ per gallon of alternative fuel used in producing an alternative fuel mixture for sale or use in a trade or business of the taxpayer.	
Income Tax Credits for Biodiesel	No provision.	*Sec. 1535.* The proposal would extend the income tax credit, excise tax credit, and payment provisions through December 31, 2010.	The current tax code provides an income tax credit for pure biodiesel and biodiesel mixtures. The pure biodiesel credit is 50¢ for each gallon of biodiesel not in a mixture with diesel fuel (100% biodiesel or B-100) and which during the taxable year is (1) used by the taxpayer as a fuel in a trade or business or (2) sold by the taxpayer at retail to a person and placed in the fuel tank of such person's vehicle. For agri-biodiesel, the credit is $1.00 per gallon. The biodiesel mixture credit is 50¢ for each gallon of biodiesel used by the taxpayer in the production of a qualified biodiesel mixture. For agri-biodiesel, the credit is $1.00 per gallon. The Code also provides an excise tax credit for biodiesel mixtures. Each of these credits expires on January 1, 2007.
Tax Credit for Small Producers of Fuel Ethanol	No provision.	*Sec. 1544.* This provision would double the capacity limit for a small fuel ethanol producer from 30 million gallons to 60 million gallons.	Present law provides small fuel ethanol producers (ones that produce less than 15 million gallons/year, and have less than 30 mil. gal. in production capacity) with 10¢/gal. tax credit. The American Job Creation Act of 2004 (P.L. 108-357) allowed cooperatives to pass the producer credit through to their patrons.
Tax Credit for Small Producers of Biodiesel	No provision.	*Sec. 1543.* A 10¢ per gallon tax credit would be provided for small producers of bio-diesel. Cooperative producers would be allowed to pass the credit through to their patrons, just as in the small ethanol producer tax credit.	This is the biodiesel equivalent of the small ethanol producer tax credit, discussed in the previous section.
Energy Management Devices	No provision.	*Sec. 1553.* The Senate bill would allow taxpayers to depreciate qualified energy management devices over three years. An energy management device is a meter used to measure and record electricity data on a time-	

Provision	House	Senate	Comments
		differentiated basis. The proposal is effective for 2006 and 2007.	
Rural Commuter Fringe Benefits	No provision.	*Sec. 1552.* This would allow an employee who lives in a rural area to exclude from income up to $50 per month for the cost of fuel related to commuting as part of a carpool arrangement. The proposal would be effective from the date of enactment through Dec. 31, 2006.	Under present law, certain fringe benefits provided by employers (such as parking space, and metro passes) are excluded (up to certain limits) from income for tax purposes.
District Heating and Cooling Facilities	No provision.	*Sec. 1554.* An exception would be provided from the volume cap restrictions for private activity bonds issued to finance local district heating and cooling facilities designed to access deep water cooling sources for building air conditioning. The aggregate financing could not exceed $75 million for each facility.	

Alternative Minimum Tax Relief

Provision	House	Senate	Comments
New Non-refundable Personal Credit Allowed Against Regular and Alternative Minimum Tax	*Sec. 1321.* The alternative minimum tax limitation would not apply to the new energy-efficiency tax credits proposed under *sections 1311 and 1317.*	No provision.	Under current tax law, most non-refundable personal income tax credits are available only to the extent of the difference between the personal and the tentative minimum tax liability—this means that the alternative minimum tax could limit the amount of the tax credit claimed. Such limitation, if triggered, would reduce the incentive effect of the credits, which in the case of any new energy-efficiency credits that may be enacted would reduce the incentives to invest in the qualifying materials and property.
Certain Business Energy Credits Allowed Against Regular and Minimum Taxes	*Sec. 1322.* H.R. 6 would expand the list of business energy tax credits for which the tentative minimum tax is removed as a limitation on the amount of tax credit otherwise claimed.	No provision.	Under current tax law, businesses have access to a variety of energy tax incentives, both for energy conservation, renewable fuels (such as the §45 tax credit), and for energy production (such as the marginal oil and gas production tax credit, and the enhanced oil recovery tax credit). For some of these tax credits, the alternative minimum tax also acts to limit the amount of a tax credit otherwise available under the income tax laws. This might reduce the incentive effects of energy tax credits.

Other Fossil Fuels Incentives—Oil and Gas

Provision	House	Senate	Comments
Expensing of Refinery Property, Generally	No provision.	*Sec. 1512.* The proposal would provide a temporary election to expense qualified refinery property—assets used in the refining of liquid fuels: (1) with respect to the construction of which there is a binding contract before January 1, 2008; (2) which is placed in service before January 1, 2012; (3) which increases the capacity of an existing refinery by at least 5% or increases throughput of qualified fuels (as defined in §29(c)) by at least 25%; and (4) which meets all applicable environmental laws in effect when the property is placed in service. The proposal also allows cooperatives to pass through to patrons the deduction permitted for qualified refinery property. To the extent the deduction for qualified refinery property is passed through to patrons, the cooperative is denied the deduction for such property or any depreciation deductions under §167 or §168 with respect to such property.	Under present tax law, petroleum refining assets are depreciated for regular tax purposes over a 10-year recovery period using the double declining balance method. Petroleum refining assets are assets used for distillation, fractionation, and catalytic cracking of crude petroleum into gasoline and its other components. Present law also provides a special expensing rule for small refiners for capital costs incurred in complying with Environmental Protection Agency sulfur regulations.
Expensing of Refinery Property to Meet EPA's Sulfur Regulations for Diesel Fuel	No provision.	*Sec. 1513.* The proposal would allow cooperatives to pass through to patrons the deduction permitted under §179B for costs paid or incurred for the purpose of complying with the Highway Diesel Fuel Sulfur Control Requirements (HDFSCR) of the Environmental Protection Agency. To the extent the deduction is passed through to patrons, the cooperative is denied the deduction it would otherwise be entitled under §179B or for depreciation deductions under §167 or §168 with respect to costs attributable to calculation of the patrons' allowable §179B deduction.	Taxpayers generally may recover the costs of investments in refinery property through annual depreciation deductions. In addition, the Code permits small business refiners to immediately deduct as an expense up to 75% of the costs paid or incurred for the purpose of complying with the HDFSCR of the EPA. The Code also provides that a small business refiner may claim credit equal to 5¢ for each gallon of low sulfur diesel fuel produced during the taxable year that is in compliance with the HDFSCR. The total production credit claimed by the taxpayer is limited to 25% of the capital costs incurred to come into compliance with the EPA diesel fuel requirements.
Enhanced Oil Recovery (EOR) Credit	No provision.	*Sec. 1514.* This would increase the existing EOR credit to 20% with respect to any new EOR project or substantial expansion of an existing EOR project that occurs after the effective date and that uses carbon dioxide flooding or injection as an oil recovery method. The increased credit is available only for qualified EOR projects that use carbon dioxide that is (1) from a man-made, industrial source or (2) separated from natural gas and natural gas liquids at a natural gas processing plant.	Current IRC§43 provides a 15% tax credit provided for the costs of recovering oil by one of several selected tertiary recovery techniques. The credit is part of the general business credit and is limited by the minimum tax. No tax credits are allowed against the minimum liability. Further, the law states that the sum of allowable credits must be less than the difference between the regular tax and the minimum liability (it cannot be larger than the difference between the two).

Provision	House	Senate	Comments
Reduced Motor Fuels Excise Tax on Certain Mixtures of Diesel Fuel	*Sec. 1313*. Under the House bill, the 24.3¢ Highway Trust Fund (HTF) component of the tax on emulsified blends of diesel and water fuels would be reduced to 19.7¢, reflecting the lower Btu value of such blended fuel.	No provision.	Diesel fuel used in highway vehicles is generally taxed at 24.4¢/gal., comprising the 24.3¢ HTF rate and the 0.1¢ leaking underground storage tank (LUST) trust fund rate. Gasoline is taxed at 18.4¢/gal., comprising a 18.3¢ HTF rate and the .01¢ LUST tax (IRC§4081). Other motor fuels are taxed at various rates per gallon, with the rates set so as to equate the tax on a Btu basis.
Amortization of Delay Rentals	*Sec. 1314*. Under the House bill, delay rental payments would be deducted evenly (amortizable) over two years. The same rule would apply to abandoned properties.	No provision.	Under the uniform capitalization rules, delay rental payments must be capitalized (via depletion). All costs of abandoned properties are deductible (IRC§263,263A).
Amortization of Geological and Geophysical Expenditures	*Sec. 1315*. G&G costs for retained properties would be amortizable (deducted evenly) over two years. The same rule would apply to abandoned properties.	No provision.	Under current law, geological and geophysical (G&G) costs for retained properties must be capitalized via depletion (IRC§263). Dry hole costs are expensed (deducted in the year incurred).

Other Fossil Fuels Incentives—Coal

Provision	House	Senate	Comments
Credit for Investment in Clean Coal Facilities	No provision.	*Sec. 1508*. Two new tax credits would be created: 1) a 20% tax credit for investments in selected types of *advanced* clean coal technologies, such as integrated gasification combined cycle, and 2) a 20% tax credit for electricity generated from certain types of gasification projects that convert coal, biomass, petroleum residue, and other material into a synthetic gas. The projects would also have to meet certification procedures.	A maximum of 6,500 megawatts of capacity would qualify for the first credit; and a limit of $4 billion of projects could qualify for the second tax credit.
Clean-coal Bonds	No provision.	*Sec. 1509*. The proposal would create a new category of tax credit bonds, "Clean Energy Coal Bonds," which would give the investor a tax credit (rather than interest-free income) determined by multiplying the bond's credit rate by the face amount on the holder's bond. These are bonds, the proceeds of which are used to finance capital expenditures for "certified coal property," defined as	Current law provides for a similar tax credit for "qualified zone academy bonds."

Provision	House	Senate	Comments
		any property that is part of a qualifying advanced coal project certified by the Secretary of Energy.	
Credit for Investment in Clean Coke/Cogeneration Manufacturing Facilities	No provision.	*Sec. 1511*. The proposal would provide a 20% investment tax credit for qualified investments in clean coke/cogeneration depreciable property and tangible personal property located in the United States. Qualifying property would have to meet certain emission limitations and be used for the manufacture of metallurgical coke or for the production of steam or electricity from waste heat generated during the production of metallurgical coke.	Present law does not provide a credit for investment in clean coke/cogeneration manufacturing facilities property.
Credit for Coal Produced on Indian Lands	No provision.	*Sec. 1548*. This would provide a tax credit of $1.50/ton of coal produced on lands owned by "Indian Tribes." The credit would rise to $2.00/ton beginning on January 1, 2010.	No special credits for coal production on Indian lands is provided under current law. The §45 renewable electricity tax credit law provides a $4.37/ton tax credit for refined coal. Also, coal production is assessed a federal Black Lung Excise tax and an Abandoned Mine Land Reclamation fee. (See: *The Black Lung Excise Tax on Coal*. CRS Report 21935.)

Renewable Energy Supply

Provision	House	Senate	Comments
Renewable Electricity Production Tax Credit	No provision.	*Secs. 1501, 1502,1503.* The credit would be expanded to include electricity produced from free-flowing ocean water derived from ocean currents or waves, ocean thermal energy, or other free-flowing water. In the case of an agricultural cooperative, the provision would allow the §45 tax credit to be passed through the cooperative to its patrons.	Present law provides a tax credit for the production of electricity from wind, biomass, geothermal, and other sources. The credit may not be allocated from the producer to another party.
Clean Renewable Energy Bonds	No provision.	*Sec.1504.* The proposal would create a new category of tax-exempt bonds: those whose proceeds are used to finance capital expenditures for facilities that qualify for the §45 renewable electricity tax credit. This proposal would also exempt from state private activity bond volume caps funding for certain facilities used to cool buildings using ocean water.	Present law allows interest on state and local bonds to be excluded from gross income if the proceeds are used for governmental purposes or the bonds are repaid with tax revenues.
Credit for Environmentally Clean Wood Stoves	No provision.	*Sec. 1549.* The Senate bill would provide a $500 tax credit for each existing conventional wood stove, used in non-attainment areas, that is replaced by one that complies with EPA's particulate matter standards.	No tax credit, or other special tax preference, has ever been provided to wood burning stoves of any type. There were efforts to have such stoves qualify for a residential energy tax credit under

Provision	House	Senate	Comments
			the Energy Tax Act of 1978 (P.L. 95-618), but these were unsuccessful.

General Tax Incentives

Provision	House	Senate	Comments
Recycling Tax Credit	No provision.	*Sec.1545.* This would provide a 15% investment tax credit for recycling equipment. Qualifying equipment includes equipment used to recycle electronic waste.	Recycling equipment qualified for a similar tax credit under the Energy Tax Act of 1978, enacted as part of President Carter's National Energy Plan. But these expired at the end of 1982.
Expansion of Research Credit	No provision.	*Sec. 1542.* Amounts paid for energy research would qualify for a 20% tax credit.	Currently, research—this applies to energy research as well—qualifies for an incremental credit over a base level of expenditures.
Exemption from the 12% Retail Excise Tax on Tractors/Trailers	No provision.	*Sec. 1550.* Bulk beds under 26 feet in length that are affixed on farm trucks would be exempt from the 12% retail excise tax on truck trailers, truck bodies, and truck chassis.	This retail excise tax is one of the six taxes (and one of three non-fuel taxes) that fund the Highway Trust Fund. However, most of the HTF revenue (over 90%) comes from the fuel taxes, mostly from the gasoline tax.

Tax Increases

Provision	House	Senate	Comments
Treatment of Aviation-Grade Kerosene	No provision.	*Sec. 1561*. The bill would eliminate reduced-tax or tax-free removals of aviation-grade kerosene in commercial and noncommercial aviation.	Kerosene used in commercial aviation is taxed at 4.4¢/gallon; non-commercial aviation kerosene is taxed at 21.9¢/gallon. This provision further restricts the rules regarding tax-free removals from refineries and terminals and exemptions for aviation fuel that began under the American Jobs Creation Act of 2004 (P.L. 108-357).
Repeal of the Ultimate Vendor Refund on Diesel Used in Farming	No provision.	*Sec. 1562*. This would repeal the law that states that refunds of overpaid excise taxes on diesel (and kerosene) used in farming go to the ultimate vendor of the fuel.	

Provision	House	Senate	Comments
Refunds of Fuel Excise Taxes on Exempt Sales of Fuel by Credit Card	No provision.	*Sec. 1563.* In the case of refunds of fuel excise taxes where the tax-exempt fuel was purchased by credit card, the person extending the credit card to the ultimate purchaser would be treated as the ultimate vendor for purposes of the refund.	This provision was in the American Jobs Creation Tax Act of 2004, but dropped in conference.
Additional Requirements for Exempt Fuel Purchases	No provision.	*Sec. 1564.* Volunteer fire departments would be added to the list of tax-exempt uses of fuel, but the types of non-profit educational institutions qualified to purchase fuel tax-free would be restricted.	
Registration in the Event of a Change in Ownership	No provision.	*Sec. 1565.* In the event of a change in ownership in the company that is responsible for registering with the Internal Revenue Service because it handles and owns fuel on which excise taxes are assessed, the original registrant/owner (who sells his ownership interest) has to reregister.	
Excise Tax Treatment of Deep-Draft Vessels	No provision.	*Sec. 1566.* Deep-draft ocean going vessels that use taxable fuel would have to be registered. Also, this section would clarify that the operator of deep-draft vessels that ship fuel in bulk to terminals or refineries would not have to be registered.	Ocean-going, deep draft vessels are exempt from the inland waterways excise tax, the 20.1¢/gallon rate of tax on fuel used in barges and which funds the Inland Waterways Trust Fund (the 0.1¢ component helps fund the Leaking Underground Storage Tank Trust Fund).
Reconciliation of Loaded Fuel Cargo to Entered Fuel Cargo	No provision.	*Sec. 1567.* The bill would require the Secretary of the U.S. Department of Homeland Security to establish a system by which data on shipments of taxable gasoline, diesel, and other fuels, is shared between the U.S. Customs and Border Protection Service and the Internal Revenue Service.	
Taxation of Gasoline Blendstocks and Kerosene	No provision.	*Sec. 1568.* Senate H.R. 6 would impose tax on the non-bulk transfer or importation of gasoline blend-stocks. Also the definition of kerosene for purposes of the 24.4¢/gallon excise tax would include mineral spirits.	
Taxation of Fuel on Vehicles Driven Out of the United States	No provision.	*Sec. 1569.* The bill would clarify that the current excise tax exemption on fuel exported out of the United States does not include fuel inside the fuel tank of a vehicle that is shipped or driven out of the United States.	
Penalties for Adulterated Diesel Fuels	No provision.	*Sec. 1570.* The bill would impose penalties on any person that knowingly sells or transfers any diesel fuel that does not meet EPA regulations.	

Provision	House	Senate	Comments
Excise Tax on Oil to Fund the Oil Spill Liability Trust Fund	No provision.	*Sec. 1571*. The Senate bill would reinstate the 5¢ tax on imported and domestic oil and petroleum products to fund the Oil Spill Liability Trust Fund.	A 5¢ per barrel excise tax financed the Oil Spill Liability Trust Fund prior to its expiration. The tax lapsed temporarily because revenues in the Trust Fund had exceeded $1 billion, the threshold for the tax, but was reimposed on July 1, 1994. The tax expired on December 31, 1994.
Excise Tax on Fuels to Fund the Leaking Underground Storage Tank Trust Fund	No provision.	Sec. 1572. The Senate bill would reinstate the 0.1¢/gallon LUST Fund excise tax on fuels through March 31, 2011, and extend it to dyed diesel fuel.	All motor fuels with the exception of propane and dyed diesel fuel are assessed a 0.1¢/gallon LUST fund component, in addition to other components such as the Highway Trust Fund (or other trust fund components) excise taxes. The LUST component expired on April 1, 2005.
Excise Tax on Highway Tires	No provision.	*Sec. 1573*. The excise tax on super single tires would be raised to 8¢/10 lbs of excess load capacity over 3,500 lbs. A "super single tire" is redefined to be a single tire greater than 17.5 inches in cross section width designed to replace two tires in a dual fitment.	For highway tires with a rated load capacity exceeding 3,500 lbs., the IRC imposes an excise tax of 9.45¢/10lbs of excess over 3,500 lbs. But super single tires are currently taxed at the rate of 4.725¢/10 lbs of excess load capacity exceeding 3,500 lbs.

Non-Tax Provisions

Provision	House	Senate	Comments
National Academy of Sciences Study	No provision.	*Sec. 1551*. Within 60 days after enactment of H.R. 6, the National Academy of Sciences shall conduct a study of the external costs (and benefits)—health, environmental, energy security, etc.—that may result form the consumption and production of energy.	Externalities (either positive or, in the case of energy, negative externalities) are non-market costs that spillover from private agents (consumers and producers) to a market transaction onto third parties. Without some type of government intervention (typically taxes or subsidies), the presence of externalities is one source of market failure (in the case of energy, this is a major source of market failure), i.e., the failure to achieve efficiency in resource allocation and use. (See: *Energy Tax Policy: An Economic Analysis.* CRS Report 30406.)

Miscellaneous

Other Provisions

Provision	House	Senate	Comments
Continuation of Transmission Security Order	*Sec. 1441.* This provision would require the order to remain in effect unless rescinded by federal statute.	No similar provision.	On August 28, 2003, the Secretary of Energy issued Order No. 202-03-2, allowing the Cross Sound Cable between Connecticut and Long Island to begin transmitting electric power. **(See Appendix I for more information)**
Review of Agency Determinations on Gas Projects	*Sec. 1442.* This section would amend the Natural Gas Act, giving the D.C. Circuit Court of Appeals exclusive jurisdiction over disputes involving "unreasonable delay" of a natural gas pipeline project certificated by FERC. Unreasonable delay would mean the failure of a permitting agency to take action within a year after the date of filing for the permit in question, or within 60 days after the issuance of a FERC certificate. There is no explicit time-line in existing law for issuance of ancillary permits and licenses, or requirement to consolidate authority in one court.	No similar provision.	This fast-tracking measure would limit the amount of time taken by other agencies after FERC had issued a certificate for a pipeline project.
Attainment Dates for Downwind Ozone Nonattainment Areas	*Sec. 1443.* This section would extend Clean Air Act deadlines for areas that have not attained ozone air quality standards if upwind areas "significantly contribute" to their nonattainment. - Section 1443 would roll back reclassifications that occurred after April 1, 2003, and would extend attainment deadlines in areas affected by upwind pollution to the date on which the last reductions in pollution necessary for attainment in the downwind area are required to be achieved in the upwind area.	No similar provision.	Under the 1990 Clean Air Act Amendments (P.L. 101-549), ozone nonattainment areas were classified in one of five categories: Marginal, Moderate, Serious, Severe, or Extreme. Areas with higher concentrations of the pollutant were given more time to reach attainment. In return for the additional time, they were required to implement more stringent controls on emissions. Failure to reach attainment by the specified deadline was to result in reclassification of an area to the next higher category and the imposition of more stringent controls. Areas such as Dallas-Fort Worth, for example, classified as Serious, were required to reach attainment by 1999. If they did not do so, the law required that they be reclassified (or "bumped up") to the Severe category, with a new deadline of 2005, and more stringent controls. The specific deadline date is open for interpretation. Under EPA's overturned policy, areas were

Provision	House	Senate	Comments
			given extensions no longer than the attainment or compliance deadline in the upwind area (generally 2004, 2005, or 2007). The language of Section 1443 appears to give EPA flexibility to extend the deadlines beyond those dates, however. It also would apply to the agency's new eight-hour ozone standard implemented last year, making many additional areas eligible for extensions.
Energy Production Incentives	*Sec. 1444.* States would be allowed to provide taxpayers that generate electricity from selected types of energy, or produce ethanol fuel, credits against any state taxes or fees owed to the state either under a state law or federal law without violating the commerce clause of the U.S. Constitution. The provision would apply to production in the state of 1) electricity from coal mined in the state and used in a facility, if such production meets all applicable federal and state laws and if such facility uses scrubbers or other forms of clean coal technology, 2) electricity from a renewable source such as wind, solar, or biomass, or 3) ethanol. Any action taken by a state in accordance with this section with respect to a tax or fee payable, or incentive applicable, for any period beginning after the date of the enactment of this Act would be considered to be a reasonable regulation of commerce, and not be considered to impose an undue burden on interstate commerce or to otherwise impair, restrain, or discriminate against interstate commerce.	No similar provision.	
Regulation of Certain Oil Used in Transformers	*Sec. 1446.* Under this section, utilities would not be required to develop a "Spill Prevention, Control, and Countermeasure Plan" for soy bean oil use in transformers as regulated by the Environmental Protection Agency under 40 CFR Part 112.12-15.	No similar provision.	
Risk Assessments	*Sec. 1447.* The Energy Policy Act of 1992 would be amended to require that federal agencies conducting risk assessments of energy-related technologies use sound and objective scientific practices that consider the best available science.	No similar provision.	
Oxygen-fuel	*Sec. 1448.* DOE would be directed to create a program for oxygen-fuel systems, in which pure oxygen is substituted for	No similar provision.	

Provision	House	Senate	Comments
	air in high-temperature boilers of industrial and electric utility steam generators. If feasible, the program would include two small (10 to 50 megawatt) units, one retrofit and one new; and two large (100 megawatts or larger) units, one retrofit and one new.		
Petrochemical and Oil Refinery Facility Health Assessment	*Sec. 1449.* The Secretary of Energy would be charged to study the health impacts of living near petrochemical and oil refining plants. In designing the study, the Secretary would consult with the National Cancer Institute and other governmental bodies having expertise. The Secretary would have to transmit the report to Congress within six months of enactment. Such sums as necessary would be authorized for this study.	No similar provision.	
United States-Israel Cooperation	*Sec. 1450.* This provision would require the Secretary of Energy to submit reports to the relevant House and Senate Committees on past, current, and future activities and projects that are attributable to the U.S.-Israel energy R&D agreement.	*Sec. 982*. Similar provision.	The United States and Israel have an agreement "to establish a framework for collaboration" between the two nations for collaboration on energy research and development activities. The agreement, which went into effect in February 2000, was automatically extended (pursuant to terms of the original agreement) in early 2005 for an additional five years.
Carbon-Based Fuel Cell Development	*Sec. 1451*. The Secretary of Energy would be authorized to make a single grant for the design and fabrication of a 5-kilowatt prototype direct coal fuel cell.	No comparable provision.	
National Priority Project Designation	*Sec. 1452.* This section, added as a floor amendment (H.Amdt. 91), would establish a presidential National Priority Project designation for organizations with projects certified by the Secretary of Energy as advancing renewable energy technology.	*Sec. 232*. The Senate provision is identical in many respects. However, it differs somewhat in the definitions of categories of projects, allows fuel cells and photovoltaic projects to be as small as 3 megawatts, identifies a role for agency personnel, and authorizes appropriations.	
Denali Commission	No provision.	*Sec. 325*. Funding would be authorized for the Denali Commission to carry out energy programs in Alaska, including development of alternative energy,	The Denali Commission Act of 1998 (42 USC 3121) established the commission to ensure cost-effective

Provision	House	Senate	Comments
		construction of electricity transmission infrastructure, replacement and cleanup of fuel tanks, and coal gasification.	delivery of federal services and support economic development in Alaska.

Ethanol and Motor Fuels

General Provisions

Provision	House	Senate	Comments
Renewable Content of Motor Vehicle Fuel	*Sec. 1501*. A new §211(o) would be added to the Clean Air Act. Beginning in 2005, motor vehicle fuel must contain a certain amount of renewable fuel. In 2005, 3.1 billion gallons of renewable fuel would be required to be sold annually, increasing to 5.0 billion gallons in 2012. After 2012, the percentage of renewable fuel required in the motor fuel pool would be required to remain the same as the percentage required in 2012. This standard would largely be met by ethanol, but other renewable fuels, such as biodiesel, would be eligible. Ethanol from cellulosic biomass (including from wood and agricultural residue, animal waste, and municipal solid waste) would be granted extra credits toward fulfilling the program's requirements (1 gallon of cellulosic ethanol would count as 1.5 gallons of renewable fuel). Further, the bill would establish a credit trading program to provide flexibility to refiners and blenders.	*Sec. 211*. Significant differences from the House version: It would require 4.0 billion gallons of renewable fuel to be used in 2006, increasing to 8.0 billion gallons in 2012. After 2012, the minimum requirement would be the ratio of renewable fuel to gasoline in 2012, but EPA would have the authority to establish a higher requirement. A gallon of cellulosic ethanol would count as 2.5 gallons of renewable fuel (1.5 gallons in the House version). Further, after 2012, a minimum of 250 million gallons of cellulosic ethanol would be required in fuel annually (and would not be subject to the increased credit for cellulosic ethanol).	The Clean Air Act Amendments of 1990 established the Reformulated Gasoline (RFG) program. Among its provisions is a requirement that RFG contain oxygen. The two main ways to meet the requirement are the use of MTBE and ethanol. However, MTBE (methyl tertiary butyl ether) has been found to contaminate groundwater, and there is interest in banning the substance (see *Sec. 1504* of the House bill). Because some states have acted to limit the use of MTBE, and because of the potential federal ban, there is interest in eliminating the oxygen standard as well (see *Sec. 1506*). - The ethanol industry has benefitted significantly from the oxygen requirement, and some are concerned about the future of ethanol in the absence of the requirement. Further, proponents of the fuel see ethanol use as a way to limit petroleum consumption and dependence on foreign oil. Thus, the interest in establishing a renewable fuels standard. However, opponents of ethanol have raised concerns that the fuel is too costly, that the energy efficiency of the ethanol fuel cycle is questionable, and that the potential for groundwater

Provision	House	Senate	Comments
			contamination by ethanol-blended fuels has not been fully studied.
Fuels Safe Harbor	*Sec. 1502(a).* Renewable fuels, MTBE, or fuels blended with renewable fuels or MTBE could not be deemed a "defective product." Applicability of this "safe harbor" would be conditioned upon a party's compliance with EPA regulations issued under §211 of the Clean Air Act and any applicable requests for information. Assuming these qualifications were met, any entity within the product chain, from manufacturers to retailers, would be shielded from products liability-based lawsuits, the approach that has been taken in most of the suits filed. Liability based on other grounds, such as negligence or breach of contract, to the extent it applies, would not be affected. - *Sec. 1502(b).* The provision would apply retroactively to claims filed on or after September 5, 2003, thereby nullifying numerous pending lawsuits.	*Sec. 211(a).* Renewable fuels used or intended to be used as a motor vehicle fuel and any motor vehicle fuel containing renewable fuel could not be deemed defective in design or manufacture. The term "renewable fuels" would be defined by a corresponding amendment to § 211 of the Clean Air Act. Further, ethers, including MTBE, would not be covered by the "safe harbor." Applicability of the provision would also be conditioned upon a party's compliance with EPA regulations issued under §211 of the Clean Air Act and any applicable requests for information. Unlike the House bill, this provision would not apply retroactively and pertains only to claims filed on or after the date of the provision's enactment.	The House bill sets an effective date of September 5, 2003, for the safe harbor, rather than the date of enactment. This effective date would protect oil and chemical industry defendants from defective product claims in about 150 lawsuits that were filed in 15 states after that date. (Source: Environmental Working Group. "Communities That Have Filed MTBE Lawsuits Against Oil Companies.") http://www.ewg.org/reports/oilandwater/lawsuits.php
MTBE Transition Assistance	*Sec. 1503.* Would amend §211(c) of the Clean Air Act to authorize $2 billion ($250 million in each of FY2005-FY2012) for grants to assist merchant U.S. producers of MTBE in converting to the production of iso-octane, iso-octene, alkylates, renewable fuels, and other fuel additives. Eligible facilities would be those that produced MTBE before April 2003 and ceased production after the date of enactment. The Secretary of Energy could make grants available unless EPA determined that such additives may reasonably be anticipated to endanger public health or the environment.	*Sec. 223(c).* Similar provision, except that $1 billion in grants would be authorized ($250 million in each of FY2005-FY2008). Eligible facilities are those that produced MTBE for consumption in air quality nonattainment areas after the date of enactment.	
Ban on the Use of MTBE	*Sec. 1504.* Not later than December 31, 2014, the use of MTBE in motor vehicle fuel would be prohibited except in states that specifically authorize it. EPA may allow MTBE in motor vehicle fuel in quantities up to	*Sec. 223(c).* Similar provision, except that the prohibition amends Section 211(c) of the Clean Air Act and would take effect not later than 4 years after the date of enactment.	

Provision	House	Senate	Comments
	0.5% in cases the Administrator determines to be appropriate.		
Presidential Determination	*Sec. 1505(b).* Would allow the President to make a determination, not later than June 30, 2014, that the restrictions on the use of MTBE shall not take place.	No comparable provision.	
National Academy of Sciences Review	*Sec. 1505(a).* Separately, this would require the National Academy of Sciences to conduct a review of MTBE's beneficial and detrimental effects on environmental quality or public health or welfare, including costs and benefits. The review would be required to be completed by May 31, 2014.	No comparable provision.	
Protection of Water Quality	No comparable provision.	*Sec. 223(c).* This would amend section 211(c) of the Clean Air Act to authorize the EPA Administrator to regulate, control, or prohibit the manufacture, introduction into commerce, offering for sale, or sale of any fuel or fuel additive for use in a motor vehicle or engine if it causes or contributes to water pollution.	Currently, the Clean Air Act grants EPA the authority to regulate fuels only if they contribute to air pollution.
Oxygen Content	*Sec. 1506(a).* Would amend §211(k) of the Clean Air Act to eliminate the requirement that reformulated gasoline contain at least 2% oxygen. The provision would take effect 270 days after enactment, except in California, where it would take effect immediately upon enactment.	*Sec. 224(a).* Same as House provision.	
Toxic Air Pollutants	*Sec. 1506(b).* Would amend §211(k)(1) of the Clean Air Act to require that each refinery or importer of gasoline maintain the average annual reductions in emissions of toxic air pollutants achieved by the reformulated gasoline it produced or distributed in 1999 and 2000. Would establish a credit trading program for emissions of toxic air pollutants.	*Sec. 224(b).* Similar anti-backsliding provision, except that the base years for determining allowable emissions are 2001 and 2002. Also would provide an exception for California, which has more stringent state requirements.	This provision is intended to prevent backsliding, since the toxic emission reductions actually achieved in those years exceeded the regulatory requirements.
Mobile Source Air Toxics	*Sec. 1506(b).* Would require EPA to promulgate final regulations to control hazardous air pollutants from motor vehicles and their fuels by July 1, 2005.	*Sec. 224(b).* Similar provision, but the deadline for promulgation would be July 1, 2007. Also would provide that if the promulgated regulations achieve	

Provision	House	Senate	Comments
		and maintain greater overall reductions in emissions of air toxics from RFG than what would be achieved under the anti-backsliding requirements described above, the anti-backsliding requirements would be null and void.	
Consolidation of RFG Requirements	*Sec. 1506(c).* Would eliminate the less stringent requirements for volatility applicable to reformulated gasoline sold in volatile organic compound (VOC) Control Region 2 (northern states) by applying the more stringent standards of VOC Control Region 1(southern states).	*Sec. 224(d).* Identical provision.	
Public Health and Environmental Impacts of Fuels and Fuel Additives	No comparable provision.	*Sec. 225.* Would amend §211(b) of the Clean Air Act to require manufacturers of fuels and fuel additives to conduct tests of their health and environmental impacts (currently, these tests are at EPA's discretion and do not include environmental effects). Also would requires EPA, within 2 years, to conduct a study of the health and environmental effects of MTBE substitutes, including ethanol-blended RFG.	
Analyses of Fuel Changes	*Sec. 1507.* A new §211(p) would be added to the Clean Air Act. Within four years of enactment, the Administrator of the Environmental Protection Agency would be required to publish a draft analysis of the effects of the fuels provisions in the Act on air pollutant emissions and air quality. Within five years of enactment, the Administrator would be required to publish a final version of the analysis.	*Sec. 226.* Similar to the House provision, except that the Senate version would also require EPA to publish, within one year of enactment, a study on the effects of ethanol content on fuel permeation through vehicle fuel systems.	
Renewable Fuels Surveys	*Sec. 1508.* Would require DOE to collect and publish monthly survey data on the production, blending, importing, demand, and price of renewable fuels, both on a national and regional basis.	*Sec. 213.* Similar to House provision, except that DOE must also collect and publish data on production costs.	
	Sec. 1501(c). Not later than December 1, 2006, and annually thereafter, the EPA Administrator would be required to conduct a survey to determine the	*Sec. 212(b).* Substantially similar to House version.	

Provision	House	Senate	Comments
	market shares of conventional gasoline and RFG containing ethanol and other renewable fuels in conventional and RFG areas in each state.		
Reducing the Proliferation of State Fuel Blends	*Sec. 1509.* A new provision would be added to §211(c)(4) of the Clean Air Act. The EPA Administrator could not approve a control or prohibition respecting the use of a fuel or fuel additive unless he found that it would not cause fuel supply or distribution interruptions or have a significant adverse impact on fuel producibility in the affected area or contiguous areas. Within 18 months of enactment, the Administrator would be required to submit a report to Congress on the effects of providing a preference for RFG or either of two low volatility (7.0 and 7.8 Reid Vapor Pressure) gasolines.	No comparable provision.	
Fuel System Requirements Harmonization Study	*Sec. 1510.* The EPA Administrator and the Secretary of Energy would be required to conduct a study of federal, state, and local motor fuels requirements, analyzing the effects of various standards on consumer prices, fuel availability, domestic suppliers, air quality, and emissions. Further, they would be required to study the feasibility of developing national or regional fuel standards, and to provide recommendations on legislative and administrative actions to improve air quality, increase supply liquidity, and reduce costs to consumers and producers. A report would be required to be submitted to Congress by December 31, 2009.	*Sec. 229.* Substantially similar to the House version, except that the report would be required to include the effects on sensitive populations, and the report would be required to be submitted to Congress by June 1, 2008.	
Commercial Byproducts From Municipal Solid Waste and Cellulosic Biomass Loan Guarantee Program	*Sec. 1511.* The Secretary of Energy would be required to establish a loan guarantee program for the construction of facilities to produce fuel ethanol and other commercial byproducts from municipal solid waste and cellulosic biomass. Applicants for loan guarantees would be required to provide assurance of repayment (at least 20%) in the form of a performance bond, insurance collateral, or other	*Sec. 212(c).* The Secretary of Energy would be required to establish loan guarantees for no more than four projects to commercially demonstrate the feasibility and viability of converting cellulosic biomass or sucrose into ethanol. Loan guarantees could cover a maximum amount of $250 million per project, but in no case for more than 80% of a project's estimated cost, as well as up to 80% of	

Provision	House	Senate	Comments
	means. The section would authorize such sums as may be necessary for the program.	project costs in excess of the estimate. No new funding would be authorized.	
Conversion Assistance for Cellulosic Biomass, Waste-Derived Ethanol, Approved Renewable Fuels	*Sec. 1512.* DOE would be allowed to provide grants to help build production facilities. To qualify, the ethanol must be produced from cellulosic biomass, municipal solid waste, wood residues, agricultural waste, or agricultural byproducts. A total of $750 million would be authorized to be appropriated between FY2005 and FY2007.	*Sec. 212(f).* Similar to the House version, except that only facilities that produce ethanol (and not other renewable fuels) from municipal waste or agricultural residue may qualify. A total of $650 million would be authorized between FY2005 and FY2006.	
Resource Center	No comparable provision.	*Sec. 212(d).* Would authorize $4 million for the Mississippi State University and Oklahoma State University for each of FY2005-FY2007 for a resource center to further develop bioconversion technology using low-cost biomass for the production of ethanol.	
Renewable Fuel Production Research and Development Grants	No comparable provision.	*Sec. 212(d).* Would authorize $25 million in each of FY2006-FY2010 for research, development, and implementation of renewable fuel production technologies in RFG states with low rates of ethanol production.	
Blending of Compliant Reformulated Gasolines	*Sec. 1513.* This provision would allow reformulated gasoline (RFG) retailers to blend batches with and without ethanol as long as both batches were compliant with the Clean Air Act. In a given year, retailers would be permitted to blend batches over any two 10-day periods in the summer months.	*Sec. 224(c).* Retailers would be permitted to blend batches of reformulated gasoline with and without ethanol as long as the resulting fuel is compliant with the Clean Air Act. There would be no limitation on the number of batches or duration of blending.	Currently, retailers must drain their tanks before switching from ethanol-blended RFG to non-ethanol RFG (or vice versa).
Advanced Biofuels Technology Program	No comparable provision.	*Sec. 230.* Would authorize $110 million in each of FY2005 through FY2009 for projects to demonstrate new technologies for the production of biofuels. The program would fund at least 4 different technologies for producing cellulosic biomass ethanol and at least 5 technologies for the production of value-added biodiesel fuel coproducts. Preference would be given to projects	

Provision	House	Senate	Comments
		that enhance geographical diversity of alternative fuel production and to projects with feedstocks used in 10 percent or less of annual ethanol and biodiesel production.	
Waste-Derived Biodiesel	No comparable provision.	*Sec. 234.* Would amend the definition of "biodiesel" under the Energy Policy Act of 1992 (42 U.S.C. 13220) to explicitly include biodiesel derived from animal wastes, municipal solid waste, and wastewater.	Current law defines biodiesel as a "diesel fuel substitute produced from nonpetroleum renewable resources." Agricultural and municipal wastes are generally considered to be renewable resources for fuel production.

Underground Storage Tank Compliance

Provision	House	Senate	Comments
Short Title	*Sec. 1521.* This subtitle may be cited as the "Underground Storage Tank Compliance Act of 2005."	No similar provision.	
Leaking Underground Storage Tanks	*Sec. 1522.* This would amend Subtitle I of the Solid Waste Disposal Act to require EPA to distribute to the states at least 80% of the funds appropriated from the Leaking Underground Storage Tank (LUST) Trust Fund for the LUST cleanup program. When determining the portion of cleanup costs to recover from a tank owner or operator, EPA or a state would be required to consider an owner or operator's ability to pay for cleanup and still maintain basic business operations.	No similar provision.	Subtitle I of the Solid Waste Disposal Act (Regulation of Underground Storage Tanks) establishes requirements to prevent, detect and respond to tank leaks.
Inspection of Underground Storage Tanks	*Sec. 1523.* EPA or states would be required to conduct compliance inspections of underground storage tanks (USTs) every three years.	No similar provision.	
Operator Training	*Sec. 1524.* States would be required to develop training requirements, based on EPA guidance, for UST operators and those responsible for tank maintenance and spill response.	No similar provision.	

Provision	House	Senate	Comments
MTBE Cleanup: Authorizing Use of the LUST Trust Fund	*Sec. 1525.* EPA and states would be authorized to use LUST Trust Fund money to respond to tank leaks involving oxygenated fuel additives (e.g., MTBE and ethanol).	*Sec. 222(a).* Similar, except that EPA and states could use LUST money for responding to MTBE and other ether fuels additives, but not ethanol; also, contamination need not be from an UST to be eligible for cleanup funding.	Under current law, LUST funds can be used to clean up contaminated drinking water supplies if the contamination can be tied to a federally regulated UST. However, because no federal drinking water standard has been established for MTBE (and drinking water standards are often used to guide corrective actions), some states do not require testing for MTBE at LUST sites, and fewer than half the states are taking steps to ensure that MTBE and other oxygenates are not migrating beyond the standard monitoring boundaries for LUST cleanup.
Use of LUST Funds to Enforce UST Leak Prevention and Detection Regulations	*Sec. 1526.* EPA and states would be authorized to use LUST funds to enforce UST release prevention requirements.	*Sec. 222(b).* Similar provision.	The law allows LUST funds to be used to enforce the LUST cleanup program, but not the leak prevention program.
Delivery Prohibition	*Sec. 1527.* Fuel delivery to ineligible tanks would be prohibited.	No similar provision.	
Federal Facilities	*Sec. 1528.* UST compliance requirements for federal facilities would be clarified and expanded.	No similar provision.	
Tanks on Tribal Lands	*Sec. 1529.* EPA would be required to develop and implement a strategy to address releases on tribal lands.	No similar provision.	
Additional Measures to Protect Groundwater	*Sec. 1530.* States would be required to establish additional groundwater protection requirements for tank owners or installers and manufacturers.	No similar provision.	
LUST Trust Fund Authorizations of Appropriations	*Sec. 1531.* There would be authorized to be appropriated from the Trust Fund:	*Sec. 222(b).* There would be authorized to be appropriated from the Trust Fund:	
	1. $200 million annually for FY2005-FY2009 for the LUST cleanup program	1. No similar provision.	1. Current law does not contain a specific authorization of appropriations.
	2. $200 million annually for FY2005-FY2009 for responding to tank leaks involving MTBE or other oxygenated fuel additives (e.g., other ethers and ethanol). Expenditures would be subject to LUST program requirements.	2. $200 million for FY2005, to remain available, for responding to tank leaks involving MTBE or other ether fuel additives (not ethanol). This is similar, except that contamination need not be	UST leaks involving MTBE are more costly to remediate than conventional gasoline leaks. MTBE is very soluble and more likely to reach water supplies. The bills authorize funding specifically for MTBE cleanup.

Provision	House	Senate	Comments
		from an UST to eligible for cleanup funding.	
	3. $155 million annually for FY2005-FY2009 for EPA and states to carry out and enforce the UST leak prevention and detection requirements added by this bill and the LUST cleanup program.	3. $50 million for FY2005 and $30 million annually for FY2006-FY2010, for EPA and states to enforce UST (leak prevention and detection regulations) and the LUST (cleanup) regulations.	
Authorization of Appropriations from General Revenues	1. This section would authorize $50 million, for each of FY2005-FY2009, for EPA and states to carry out the UST program.	1. No similar provision.	
Conforming and Technical Amendments	*Sec. 1532.* Conforming amendments. *Sec. 1533.* Technical amendments.	No similar provisions.	

Boutique Fuels

Provision	House	Senate	Comments
Reducing the Proliferation of Boutique Fuels	*Sec. 1541.* The EPA Administrator would be permitted to temporarily waive fuel requirements, including state fuel requirements and RFG standards, in the case of a natural disaster, Act of God, pipeline or refinery equipment malfunction, or other unforeseeable event. In addition, the Administrator could not approve a fuel standard under a State Implementation Plan if that standard would increase the number of unique state formulations above the number as of September 1, 2004.	No comparable provision.	

Studies

Provision	House	Senate	Comments
Study on Inventory of Petroleum and Natural Gas Storage	*Sec. 1601*. The Secretary of Energy would have to report to Congress within a year of enactment on the amount of storage capacity for petroleum and natural gas. While the oil and gas industry is subject to broad reporting requirements under a variety of laws, this language would call for a comprehensive study of the nation's storage capability and the role it plays in the marketplace and the hydrocarbon industries' ability to meet demand.	*Sec. 1319*. Within one year of enactment, the Secretary of Energy would be directed to conduct a study of crude oil, refined petroleum products, and natural gas inventories, analyzing inventory levels and storage capacity trends. The study would also identify factors leading to shortages, and contain recommendations for their avoidance.	Storage capacity for natural gas and petroleum plays an important role in buffering the impacts of seasonal or unanticipated increases in demand, providing supply when needed and mitigating price spikes.
Study of Energy Efficiency Standards	*Sec. 1605*. DOE would be directed to have the National Academy of Sciences study whether the goals of energy efficiency standards are best served by focusing measurement at the site (energy end-use) or at the source (the full fuel cycle). This provision relates to a previous Executive Order, which found that federal agencies should get credit toward meeting energy efficiency goals even where "source energy use declines but site energy use increases."	*Sec. 1323*. Nearly identical provision.	This refers to Executive Order 13123. DOE's Federal Energy Management Program (FEMP) discusses this issue in its Guidance for Providing Credit Toward Energy Efficiency Goals for Cost-Effective Projects Where Source Energy Use Declines But Site Energy Use Increases, April 26, 2000, 4 pp.
Telecommuting Study	*Sec. 1606*. DOE would be directed to study and report on the energy conservation potential of widespread adoption of telecommuting by federal employees. In this effort, DOE would be required to consult with the Office of Personnel Management, General Services Administration, and National Telecommunications and Information Administration.	*Sec. 1324*. Nearly identical provision.	
LIHEAP Report	*Sec. 1607*. The Department of Health and Human Services (HHS) would be directed to report on how the Low-Income Home Energy Assistance Program could be used more effectively to prevent loss of life from extreme temperatures.	No similar provision.	
Oil Bypass Filtration Technology	*Sec. 1608*. DOE and EPA would be required to jointly study the benefits of oil bypass filtration technology in	*Sec. 1325*. Nearly identical provision.	

Provision	House	Senate	Comments
	reducing demand for oil and protecting the environment. This study would include consideration of its use in federal motor vehicle fleets and an evaluation of products and manufacturers.		
Total Integrated Thermal Systems	*Sec. 1609*. DOE would be directed to study the potential for integrated thermal systems to reduce oil demand and to protect the environment. Also, DOE would study the feasibility of using this technology in Department of Defense and other federal motor vehicle fleets.	*Sec. 1326*. Nearly identical provision.	
University Collaboration	*Sec. 1610*. DOE would be directed to report on the feasibility of promoting collaboration between large and small colleges through grants, contracts, and cooperative agreements for energy projects. DOE would also be directed to consider providing incentives for the inclusion of small colleges in grants, contracts, and cooperative agreements.	*Sec. 1327*. Nearly identical provision.	
Reliability and Consumer Protection Assessment	*Sec. 1611*. Within five years of enactment, and every five years thereafter, FERC would be required to assess the effects of electric cooperative and government-owned utilities' exemption from FERC ratemaking regulation under section 201(f) of the Federal Power Act. If FERC found that the exemption resulted in adverse effects on consumers or electric reliability, FERC would be required to make recommendations to Congress.	No comparable provision.	
Report on Energy Integration with Latin America	*Sec. 1612*. The Secretary of Energy would be called on to submit a report to the House Committee on Energy and Commerce and the Senate Energy and Natural Resources Committee about energy export development in Latin America. With special focus on Mexico, it would detail Latin America and regional energy integration, and describe U.S. efforts to promote constructive relationships. In particular, it would focus on efforts made with regard to U.S.-Mexico cross-border energy projects.	No similar provision.	

Provision	House	Senate	Comments
Low-Volume Gas Reservoir Study	*Sec. 1613.* The Secretary of Energy would be required to make a grant to an organization of gas producing states formed to deal with marginal oil and natural gas wells. The grant would be used for an annual study of these reservoirs, to determine their location and production characteristics, and recommend incentives for production enhancement. Extensive data collection is envisioned, and this analysis would have to be performed by an institution of higher education with GIS (geographic information system) technology capabilities.	No similar provision.	
Consolidation of Gasoline Industry	*Sec. 1614.* Would require the Comptroller General of the United States to conduct a study of the consolidation of the refiners, importers, producers, and wholesalers of gasoline with the sellers of such gasoline at retail. The study would analyze the impact of such consolidation on the retail price of gasoline and small business ownership, corollary effects on the market economy of fuel distribution and local communities, and other market impacts of such consolidation.	*Sec. 735.* Would require the Federal Trade Commission to undertake a study to determine whether any form of market manipulation can account for high gasoline prices. A study by the National Petroleum Council would analyze the extent to which environmental and other regulations may be affecting refinery construction and expansion.	A study on the effects of mergers and market concentration in the oil industry was published in May 2004 by the General Accounting Office (now called the General Accountability Office) (GAO, *Energy Markets, Effects of Mergers and Market Concentration in the U.S. Petroleum Industry*, GAO-04-96, May 2004). This year, a study analyzing the factors affecting gasoline prices was issued by the Federal Trade Commission (FTC, *Gasoline Price Changes: The Dynamic of Supply, Demand, and Competition*, June 2005).
Study of Fuel Savings From Information Technology for Transportation	*Sec. 1615.* The Secretary of Energy, in consultation with the Secretary of Transportation, would be required to report to Congress on the potential fuel savings from the use of information technologies to help businesses and consumers plan their trips and avoid delays.	No comparable provision.	
Feasibility Study for Mustard Seed Biodiesel	*Sec. 1616.* The Secretary of Energy would be required to contract with the National Academy of Sciences for a study to determine the feasibility of using mustard seed as a feedstock for biodiesel production.	No comparable provision.	
Reduction of Dependence on Imported Petroleum	No comparable provision.	*Sec. 151.* The President would be required to submit a report to Congress by February 2006, and annually thereafter, on U.S. progress toward reducing petroleum consumption in 2015 by 1,000,000 barrels daily from the baseline projected in the Department of	

Provision	House	Senate	Comments
		Energy's *Annual Energy Outlook, 2005*. Within one year of enactment, the President would develop and implement measures to achieve this objective without compromising the supply and affordability of energy to consumers.	
Assessment of Dependence of State of Hawaii on Oil	No comparable provision.	*Sec. 324*. The Secretary of Energy would be required to evaluate the vulnerability of Hawaii to oil disruptions, and to assess, island-by-island, the technical and economic feasibility of displacing oil consumption with other sources of energy, including renewables, liquefied natural gas, and hydrogen. Appropriations for completion of the analysis are authorized, but not specified.	
Energy and Water Saving Measures in Congressional Buildings	No similar provision.	*Sec. 1301*. The Architect of the Capitol would be required to study ways to improve the energy efficiency and energy security of the Capitol Complex through green building, green roof, computer-based building management, onsite renewable energy, and other measures.	
Renewable Energy on Federal Land	No similar provision.	*Sec. 1304*. The Secretary of the Interior would be required to have the National Academy of Sciences (NAS) study the potential for wind, solar, and ocean energy resources on federal land and the outer Continental Shelf.	
Hybrid Distributed Power Systems	No similar provision.	*Sec. 1310*. The Secretary of Energy would be required to study and report on hybrid distributed power systems that combine one or more renewable electric power technologies with one or more nonintermittent electric power technologies.	
Hydrogen Participation Study	No similar provision.	*Sec. 1328*. The Secretary of Energy would be required to report to Congress on ways to ensure broad participation, including international participants, in setting goals for the DOE Hydrogen program.	

Provision	House	Senate	Comments
Overall Employment in a Hydrogen Economy	No similar provision.	*Sec. 1329.* The Secretary of Energy would be required to study and report to Congress on the likely effects of a transition to a hydrogen economy on national employment.	
Study of Best Management Practices for Energy Research and Development Programs	No similar provision.	*Sec. 1330.* The Secretary of Energy would be required to have the National Academy of Public Administration study and report to Congress on management practices for DOE R&D programs. This is to include practices that could improve linkage between the Office of Science and mission-oriented offices and practices used by the Department of Defense Advanced Research Projects Agency.	
Alternative Fuels Reports	No comparable provision.	*Sec. 1332.* The Secretary of Energy would be required to report on the potential for biodiesel and hythane to be "major, sustainable, alternative fuels."	Hythane is a registered trademark for compressed natural gas mixed with a small percentage of hydrogen.
Fuel Cell and Hydrogen Technology Study	No similar provision.	*Sec. 1334.* In order to address concern about climate change and foster the reduction of carbon emissions, the Secretary of Energy would be required to have NAS study and report on a budget roadmap for developing a transition to hydrogen fuel cell vehicles by 2020. The roadmap would specify the amount of federal funding required and identify advantages and disadvantages of such a transition.	
Passive Solar Technologies	No similar provision.	*Sec. 1335.* The Secretary of Energy would be required to study and report to Congress on the levelized cost of avoided electricity for passive solar technologies and on the potential energy savings if these technologies were to be eligible for incentives comparable to those provided for electricity generation technologies.	
Science Study on Cumulative Impacts	No similar provision.	*Sec. 1338.* The Secretary of Energy, in consultation with other federal agencies and non-government stakeholders, would be required to study the potential	"Open-rack" vaporization of LNG uses a continuous flow of seawater to reheat cryogenic LNG to a gaseous state. This study is prompted by

Provision	House	Senate	Comments
of Multiple Offshore LNG Facilities		marine environmental impacts of multiple offshore liquefied natural gas (LNG) import facilities using "open-rack" vaporization in the Gulf of Mexico.	concerns that multiple open-rack systems may kill a significant portion of commercial and non-commercial marine species, especially non-migratory species (e.g. redfish), in the waters near new offshore LNG terminals employing such systems.

Renewable Energy—Resources

Provision	House	Senate	Comments
Grants to Improve the Commercial Value of Forest Biomass for Electric Energy, Useful Heat, Transportation Fuels, Petroleum-Based Product Substitutes, and Other Commercial Purposes	*Sec. 1701*. This section is described immediately after *section 206* above.		
Environmental Review for Renewable Energy Projects	*Sec. 1702*. This provision would limit the number of alternative site analyses that a federal agency must perform when National Environmental Policy Act (NEPA) requirements are triggered by a proposed renewable energy project.	No similar provision.	For all development projects proposed for federal lands (or other federally controlled areas), NEPA requires an environmental assessment or environmental impact statement (EIS).
Sense of Congress Regarding Generation Capacity of Electricity From Renewable Energy Resources on Public Lands	*Sec. 1703*. For the Secretary of the Interior, this provision would set a goal of having 10,000 megawatts of non-hydropower renewable energy generation capacity installed on public lands within 10 years from the date of enactment.	No similar provision.	

Geothermal Energy

Provision	House	Senate	Comments
Short Title	*Sec. 1801.* The John Rishel Geothermal Steam Act Amendments of 2005.	No similar provision	Much of the nation's geothermal energy potential is located on federal lands. Reducing delays in the federal geothermal leasing process and reducing royalties could increase geothermal energy production, although the environmental impact of greater geothermal development is also an issue.
Competitive Lease Sale Requirements	*Sec. 1802.* Amendments to the Geothermal Steam Act would change lease procedures for competitive and non-competitive lease sales. Competitive lease sales would be held every two years. If there were no competitive bid, then lands would be made available for two years under a non-competitive process.	*Sec. 261.* Similar, except administrative action would be taken to ensure timely processing of applications for geothermal leasing pending on May 19, 2005.	Competitive geothermal lease sales are based on whether lands are within a known geothermal resource area (Geothermal Steam Act of 1970, U.S.C. 1003). Geothermal production on federal lands is charged a royalty of 10%-15% under Section 5 of the Geothermal Steam Act. The royalty is imposed on the amount or value of steam or other form of heat derived from production under a geothermal lease.
Direct Use	*Sec. 1803.* A fee schedule in lieu of any royalty or rental payments would be established for low-temperature geothermal resources. Existing geothermal leases may be converted to leases for direct utilization of low-temperature geothermal resources.	*Sec. 262.* Similar, except different basis for schedule of fees.	The Secretary of the Interior can withdraw public lands from leasing or other public use and modify, extend, or revoke withdrawals under provisions in the Federal Land Policy and Management Act of 1976 (FLPMA, 43 U.S.C. 1714). At certain intervals the Secretary may readjust terms and conditions of a geothermal lease, including rental and royalty rates. Annual rental fees of not less than $1 per acre on geothermal leases are paid in advance. The primary lease term is 10 years and continues as long as geothermal steam is produced or used in commercial quantities. Rents are $1 per acre or fraction thereof for each year of a geothermal lease.
Royalties and Near-Term Production Incentives	*Sec. 1804.* Royalties on electricity produced from geothermal resources would be not less than 1% and not more than 2.5% of the gross proceeds from geothermal electricity sales in the first 10 years of production and not less than 2% and more than 5% of the gross proceeds from geothermal electricity sales each year after the 10-year period.	*Sec. 263.* Royalty calculations would be simplified not later than one year after enactment of this act.	
Expediting Administrative Action	*Sec. 1805.* With respect to National Forest lands, the Secretary of Agriculture and the Secretary of the Interior would ensure timely actions for processing applications pending as of January 1, 2005.	No similar provision.	

Provision	House	Senate	Comments
Coordination of Leasing and Permitting	*Sec. 1806.* A memorandum of understanding between the Secretaries of the Interior and Agriculture should include provisions that would identify known geothermal areas on public lands within the National Forest system and establish an administrative procedure that would include time frames for processing lease applications.	Sec. 264. Same.	
Review and Report to Congress	*Sec. 1807.* The Secretary of the Interior would review all areas under moratoria or withdrawals and report to Congress on whether the reasons for withdrawal still applied.	No similar provision.	
Reimbursement of NEPA Costs	*Sec. 1808.* The Secretary of the Interior could reimburse lessees for the costs of environmental analyses required by NEPA through royalty credits under certain circumstances.	No similar provision.	
Assessment of Geothermal Energy Potential	*Sec. 1809.* The U.S. Geological Survey (USGS) would provide Congress with an assessment of current geothermal resources.	Sec. 265. Same.	
Cooperative or Unit Plans	*Sec. 1810.* Cooperative or unit plans for geothermal development would be promoted.	Sec. 266. Same.	
Royalty on Byproducts	*Sec. 1811.* Leasable minerals produced as a byproduct of a geothermal lease would be subject to royalties under the Mineral Leasing Act (30 U.S.C. 181).	Sec. 267. Same.	
Repeal of Authorities to Readjust Lease Terms	*Sec. 1812.* Sections 8(a) and (b) of the Geothermal Steam Act would be repealed, which would eliminate the Secretary's authority to readjust geothermal rental and royalty rates at "not less than 20 year intervals beginning 35 years after the date geothermal steam is produced."	No similar provision.	This provision would preserve the initial conditions of a geothermal lease by prohibiting future adjustments imposed by the Secretary of the Interior.

Provision	House	Senate	Comments
Crediting of Rental Toward Royalty	*Sec. 1813.* Annual rentals would be credited towards the royalty under the same lease.	No similar provision.	
Lease Duration and Work Commitment Requirements	*Sec. 1814.* The primary lease term would be 10 years and could be extended for two additional five-year terms if work commitments were met.	*Sec. 268.* The Secretary of the Interior shall establish payments to ensure diligent development of the lease.	
Advanced Royalties Required for Suspension of Production	*Sec. 1815.* If production from a geothermal lease were suspended during a period in which a royalty was required, royalties would be paid in advance until production resumed.	*Sec. 270.* Similar but the lease would remain in full force an aggregate of 10 years from the date production ceases.	
Annual Rental	*Sec. 1816.* The bill would establish rental rates for competitive and non-competitive lease sales.	*Sec. 269*. Similar. The annual rental schedule would be amended to encourage diligent development of the lease.	
Deposit and Use of Geothermal Lease Revenues	*Sec. 1817.* For the first five years after the enactment of this act, a separate account would be established for revenue receipts from leases under the Geothermal Steam Act of 1970, excluding money necessary for payments to states and county governments.	No similar provision.	
Repeal of Acreage Limitations	*Sec. 1818.* Section 7 of the Geothermal Steam Act on acreage limitations would berepealed.	No similar provision.	
Technical Amendments	*Sec. 1819.* About two dozen technical amendments are included in this section.	*Sec 272.* Similar.	
Intermountain West Geothermal Consortium	*Sec. 1820.* The Intermountain West Geothermal Consortium would be established to focus on expanded use of geothermal energy. The consortium would involve the participation of the	No similar provision	

Provision	House	Senate	Comments
	Secretary of Energy, universities in the region, and state agencies.		
Geothermal Leasing on Land Withdrawn for Military Purposes	No similar provision.	*Sec. 271.* Not later than 2 years after enactment, the Secretary of the Interior and the Secretary of Defense, in consultation with states and other agencies, would be required to submit to the appropriate committees of Congress a joint report on leasing and permitting activities for geothermal energy on federal land withdrawn for military purposes.	

Hydropower—Resources

Provision	House	Senate	Comments
Increased Hydroelectric Generation at Existing Federal Facilities	*Sec. 1901.* Within 18 months of enactment, the Secretaries of the Interior, Energy, and the Army would submit a study of the potential for increasing electric power production capability at federally owned or operated water regulation, storage, and conveyance facilities.	*Sec. 1302.* Same provision.	
Shift of Project Loads to Off-Peak Periods	*Sec. 1902.* The Secretary of the Interior would review electric power consumption by the Bureau of Reclamation facilities for water pumping, and, with the consent of affected irrigation customers, adjust water pumping schedules to reduce power consumption during periods of peak electric power demand. This section would not affect Interior's existing obligations to provide electric power, water, or other benefits.	No similar provision.	
Report Identifying and Describing the Status of Potential Hydropower Facilities	*Sec. 1903.* Within 90 days of enactment, the Secretary of the Interior would submit a report identifying and describing the status and characteristics of potential hydropower facilities included in water surface storage studies undertaken for projects that have not been completed or authorized for construction.	No similar provision.	

Oil and Gas—Resources

Production Incentives

Provision	House	Senate	Comments
Definition of Secretary	*Sec. 2001*. In this subtitle, "Secretary" means Secretary of the Interior.	Sec. 311. Same.	
Program on Oil and Gas Royalties-In-Kind	*Sec. 2002*. The federal government would be allowed to continue to receive physical quantities of oil and gas as royalty-in-kind payments if it can receive market value for the product and revenues greater than or equal to the revenues it would have received under a comparable cash-payment royalty. The royalty product would have to be placed in marketable condition (as defined in H.R. 6) at no cost to the United States. Small refineries would receive preferential treatment if supplies on the market were insufficient. A report to Congress in each year from FY2005-FY2014 would explain, among other things, how the Secretary determined whether the amount received was at least the amount that would have been taken in cash and how a lease was evaluated as to whether royalties-in-kind were taken.	*Sec. 312*. Same except the report to Congress would be in each year from FY2006-FY2015.	
Marginal Property Production Incentives	*Sec. 2003*. The Secretary of the Interior would have the authority to reduce or terminate royalties for independent producers under certain conditions. The Secretary would be authorized to prescribe different standards for marginal properties in lieu of those in this section.	Sec. 313. Same.	
Incentives for Natural Gas Production From Deep Wells in the Shallow Waters of the Gulf of Mexico	*Sec. 2004*. Royalty reductions would be provided for shallow water production at certain depths not later than180 days after enactment. An "ultra-deep" well would also be defined in this section.	*Sec. 314*. Similar. Defines "lease issued in shallow waters" and a sidetrack well.	These reductions would be provided for production in less than 400 meters of water in the House bill but not more than 200 meters in the Senate. The Senate definition of shallow water is less than 200 meters deep.

Provision	House	Senate	Comments
Royalty Reductions for Deep Water Production	*Sec. 2005.* Royalty reductions would be provided for deepwater areas at fixed production levels at certain depths.	*Sec 315.* Similar.	The reductions are limited to 12 million barrels of oil equivalent at depths greater than 1,600 meters.
Alaska Offshore Royalty Suspension	*Sec. 2006.* Planning areas in offshore Alaska would be included under section 8(a)(3)(B) of the Outer Continental Shelf Lands Act (OCSLA, 43 U.S.C. 1337(a)(3)(B)).	*Sec. 316.* Same.	This section of OCSLA currently provides a mechanism for the Secretary of the Interior to reduce or eliminate royalty or net profit share established in leases for oil and gas production in Gulf of Mexico planning areas.
Oil and Gas Leasing in the National Petroleum Reserve in Alaska	*Sec. 2007.* The competitive leasing system for oil and gas in the National Petroleum Reserve in Alaska would be modified. Leases would be issued for successive 10-year terms if leases met specific criteria. Active participation would be sought by the State of Alaska and Regional Corporations as defined under the Alaska Native Claims Settlement Act (43 U.S.C. 1602). The Secretary of the Interior could grant royalty reductions if they were found to be in the public interest.	*Sec. 317.* Similar provision.	
North Slope Science Initiative	No comparable provision.	*Sec. 318.* Would establish in the Interior Department a long-term initiative to coordinate collection of scientific data that will provide a better understanding of the terrestrial, aquatic, and marine ecosystems of the North Slope of Alaska. The Interior Secretary would enter into cooperative agreements with the State of Alaska, the North Slope Borough, the Arctic Slope Regional Corporation, and other Federal agencies to coordinate efforts, share resources, and fund projects. Not less than 3 years after the date of enactment of this section and each year thereafter, the Secretary shall publish a report that describes the studies and findings of the initiative.	
Orphaned, Abandoned, or Idled Wells on Federal Land	*Sec. 2008.* Within a year after enactment, the Secretary would establish a technical assistance program to help states remediate and close	*Sec. 319.* Similar except Senate bill does not contain federal reimbursement for orphaned well reclamation.	

Provision	House	Senate	Comments
	abandoned or idled wells. Technical and financial assistance would be made available over a 10-year period to quantify and mitigate environmental dangers. A program would be established for reimbursing the private sector with credits against federal royalties for reclaiming, remediating, and closing orphaned wells.		
Combined Hydrocarbon Leasing	*Sec. 2009.* The Mineral Leasing Act would be amended to allow separate leases for tar sands and for oil and gas in the same area. Tar sands would be leased under the same system as for oil and gas and would require a minimum acceptable bid of $2 per acre.	*Sec. 320.* Similar except the Senate version does not contain a House provision to waive or suspend a requirement to exercise due diligence to promote a resource under a combined hydrocarbon lease.	
Alternate Related Uses on the Outer Continental Shelf	*Sec. 2010.* The Secretary would be authorized to grant rights-of-way or easements on the OCS for energy-related activity on a competitive or noncompetitive basis and would charge fees for such access. A surety bond or other financial guarantee would be required.	*Sec. 321.* This would amend the Outer Continental Shelf Lands Act to provide authority to the Secretary of the Interior to grant leases, easements, or rights-of-way for energy and related purposes on the OCS. The section would not allow the grant of easements or rights-of-way for activities that support the exploration, development, or production of oil and gas in areas where oil and gas preleasing, leasing, and related activities are prohibited by a congressional moratorium or a withdrawal pursuant to section 12 of the Outer Continental Shelf Lands Act. The authority would not apply to any area within the exterior boundaries of any unit of the National Park System, National Wildlife Refuge System, or National Marine Sanctuary System, or any National Monument. The section would require the Secretary to undertake a coordinated OCS mapping initiative to assist in decision-making relating to the siting of facilities under the section.	Although specific types of energy resources are not specifically mentioned, this provision would presumably cover ocean energy, wind energy, and geothermal energy.
Preservation of Geological and Geophysical Data	*Sec. 2011.* The U.S. Geological Survey would establish a program to archive geologic, geophysical, and engineering data, maps, well logs, and samples; provide a national catalog of archival material; and provide technical and financial assistance related to	*Sec. 322.* The Secretary of the Interior would carry out a National Geological and Geophysical Data Preservation Program that would archive geologic, geophysical, and engineering data, maps, well logs, and samples; provide a national catalog of such archival	

Provision	House	Senate	Comments
	the archival material. State agencies that elect to be part of the data archive system that stores and preserves geologic samples would receive 50% financial assistance, subject to the availability of appropriations. Private contributions would be applied to the non-federal share. Appropriations of $30 million per year from FY2006 through FY2010 would be authorized.	material; provide technical and financial assistance related to the archival material; and establish a data archive system comprised of State agencies and Interior Department agencies for federal land data in a national catalog.	
Oil and Gas Lease Acreage Limitations	*Sec. 2012.* Lease acreage limits would be altered so that additional federal lands would not fall under the Mineral Leasing Act's single-state ownership limitations.	Sec. 323. Same	
Deadline for Decision on Appeals Under the Coastal Zone Management Act (CZMA)	*Sec. 2013.* Current Section 319 of the CZMA would be replaced with a new set of provisions that would stipulate three sequential deadlines, and thereby limit the overall length of this appeals process to a total of 270 days from the date when an appeal is filed. The first deadline would be for the Secretary of Commerce to publish an initial notice of an appeal in the *Federal Register* within 30 days of the appeal's filing. The second deadline would be that the administrative record would be open for no more than 120 days. During that time period, the Secretary could receive filings related to the appeal. The final deadline would give the Secretary up to 120 days to issue a decision after the administrative record had been closed. The second and third deadlines would also apply to all pending appeals not resolved prior to the date of enactment. Also, any appeals in which the record is open on the date of enactment would have to be closed within 120 days of that date.	*Sec. 387.* Generally similar in intent to provisions in House bill, limiting the appeals process to 270 days, but this section would allow a total of 270 days rather than create three sequential deadlines that total 270 days. In addition, it would allow a 60 day extension for keeping the administrative record open under specified circumstances, and would allow an extension of up to 45 days for the Secretary to issue a decision. The Senate bill would not "grandfather" pending appeals.	This section would replace language in Section 319 of CZMA, as amended (16 U.S.C. 1465). Section 319 had been added as an amendment in 1996. It established a time line for appeals to the Secretary of Commerce on consistency determinations when a state and federal agency are unable to reach agreement. The consistency provisions, set forth in Section 307 of the CZMA, require federal activities in or affecting the coastal zone to be consistent with the policies of a federally approved and state-administered coastal zone management plan. (Federal activities include activities and development projects performed by a federal agency or by a contractor on behalf of a federal agency, and federal financial assistance.) A proposal to modify the appeals time line with deadlines very similar to this legislation was included in a proposed rule on federal consistency, published in the June 11, 2003, *Federal Register*. A final rule has not been issued. **(For more information see Appendix J.)**
Reimbursement for Costs of NEPA Analysis,	*Sec. 2014.* The Mineral Leasing Act would be amended to provide reimbursement for costs of NEPA-related studies under certain circumstances.	No similar provision.	

Provision	House	Senate	Comments
Documentation, and Studies			
Gas Hydrate Production Incentive	*Sec. 2015.* Royalties would be suspended for the first 50 billion cubic feet of natural gas produced from gas hydrate resources per 9 square miles of leased tract, in addition to any other applicable royalty relief.	No similar provision.	
Onshore Deep Gas Production Incentive	*Sec. 2016.* Royalties for onshore deep-well natural gas would be suspended for up to 50 billion cubic feet per natural gas lease.	No similar provision.	
Enhanced Oil and Natural Gas Production	*Sec. 2017.* Royalty relief would be available for the purposes of enhancing oil and natural gas recovery from specified leases.	*Sec. 327.* The Secretary of Energy would be required to establish a competitive grant program for projects to inject carbon dioxide to enhance recovery of oil or natural gas while increasing the sequestration of carbon dioxide.	
Oil Shale	*Sec. 2018.* The Secretary of the Interior would develop an oil shale leasing program as soon as practicable and publish a final regulation to implement the program by December 31, 2006.	*Sec 346.* Similar except its leasing program would be for oil shale and oil sands. The leasing program would be for conducting research and development activities related to the production of oil shale and oil sands. An environmental impact statement would be conducted, and an oil shale and oil sands task force would be set up to develop a program to coordinate and accelerate the commercial development of oil shale and tar sands.	
Use of Information about Oil and Gas Public Challenges	*Sec. 2019.* The Secretary of the Interior and the Secretary of Agriculture would collect information on challenges by the public to agency decisions and use the information to manage oil and gas programs within their departments.	No similar provision.	
Comprehensive Inventory of OCS Oil and Natural Gas Resources	No similar provision.	*Sec. 326.* The Secretary of the Interior would conduct an inventory and analysis of oil and natural gas beneath all waters of the United States OCS. Also, the Secretary would issue a report to Congress within 6 months of enactment of the legislation that would	

Provision	House	Senate	Comments
		include a discussion of restrictions, impediments, and recommendations.	

Access to Federal Lands

Provision	House	Senate	Comments
Leasing and Permitting Processes	Sec. 2021. An Office of Federal Energy Project Coordination (FEPC) would be established to review and report on accomplishments that are considered more efficient and effective for federal permitting.	No similar provision	
Review of Leasing Practices	*Sec. 2022.* The Secretary of the Interior would perform an internal review of the federal onshore oil and gas leasing and permitting process with particular focus on lease stipulations affecting the environment and conflicts over resource use.	*Sec. 341*. Similar except that the National Academy of Public Administration would perform a review of federal onshore oil and gas leasing practices while the Department of the Interior would separately perform an internal review.	
Management of Leasing Programs	*Sec. 2023.* The Secretary of the Interior would be required to ensure expeditious completion of environmental and other reviews and implement "best management practices" that would lead to timely action on oil and gas leases and drilling permits. Funds would be authorized for FY2006-FY2009.	*Sec. 342.* Similar except funds would be authorized from FY2006-FY2010.	
Consultation on Lease Applications	*Sec. 2024.* The Secretary of the Interior and the Secretary of Agriculture would enter into a memorandum of understanding to ensure timely processing of oil and gas lease applications.	Sec. 343. Same	
Estimates of Oil and Gas Resources	*Sec. 2025.* The U.S. Geological Survey would be required to estimate onshore oil and gas resources and identify impediments and restrictions that might delay permits. The Department of Energy would be required to make regular assessments of economic reserves.	No similar provision.	
Pilot Project on Federal Permit Coordination	*Sec. 2026.* A pilot program would be established to demonstrate energy development on federal land in accordance with the multiple-use mandate; Wyoming, Montana, Colorado, Utah, and New Mexico would be asked to participate.	*Sec. 344.* Same, except funds would be authorized for FY2006-FY2010.	
Deadline for Consideration of Permit Applications	*Sec. 2027.* The Secretary of the Interior would have 10 days after receiving an application for a permit to drill (APD) to notify the applicant whether the APD was complete. The	No similar provision.	

Provision	House	Senate	Comments
	Secretary would have 30 days after a complete APD was submitted to issue or defer a permit with correcting measures. If deferred, the applicant would have a two-year window to complete the application, as specified by the Secretary. If the applicant met the requirements, then the Secretary would issue a permit within 10 days. The Secretary would deny the permit if the criteria were not met within the two-year period.		
Fair Market Rental Value Determinations for Public Land and Forest Service Rights-of-Way	*Sec. 2028.* The Secretaries of the Interior and Agriculture would annually revise and update rental fees for land encumbered by linear rights-of-way to reflect fair market value.	No similar provision.	
Energy Facility Rights-of-Way and Corridors on Federal Lands	*Sec. 2029.* Not later than one year after enactment, the Secretaries of the Interior and Agriculture, in consultation with the Secretaries of Defense, Commerce, and Energy and FERC, would submit to Congress a report addressing the location of existing rights-of-way on federal land for oil and gas pipelines and electric transmission and distribution facilities.	*Sec. 345.* Similar, but would not include a report to Congress.	
Consultation Regarding Energy Rights-of-Way on Public Land	*Sec. 2030.* Within six months after enactment, the Secretaries of the Interior and Agriculture would be required to enter into an MOU to coordinate environmental compliance and processing of rights-of-way applications.	No similar provision.	
Electricity Transmission Line Right-of-Way in Cleveland National Forest and Adjacent Public Land	*Sec. 2031.* The Bureau of Land Management would become the lead federal agency for environmental and other necessary reviews for a high-voltage electricity transmission line right-of-way through the Trabuco Ranger District of the Cleveland National Forest in California.	No similar provision.	
Sense of Congress Regarding Development of Minerals Under Padre Island National Seashore	*Sec. 2032.* In recognition of the split estate on Padre Island National Seashore, it would be the sense of Congress that the federal government owns the surface rights while the mineral rights are held privately and also by the state of Texas.	No similar provision.	
Livingston Parish Mineral Rights Transfer	*Sec. 2033.* Section 102 of P.L. 102-562 is amended by striking the "Conveyance of Lands" provision, which maintains the reservation of mineral rights held by the United States in specific areas of Livingston Parish, Louisiana.	No similar provision.	

Provision	House	Senate	Comments
Fingerlakes Withdrawal	No similar provision.	*Sec. 347.* All federal land within the boundary of Fingerlakes National Forest, New York, is withdrawn from entry, disposal, appropriation, and disposition under mineral leasing laws.	
Reinstatement of Leases	No similar provision.	*Sec. 348.* This section would establish conditions for which an oil and gas lease is reinstated if it was terminated between September 1, 2001, and June 30, 2004.	

Naval Petroleum Reserves

Provision	House	Senate	Comments
Naval Petroleum Reserves	*Secs. 2041-2044.* This provision would transfer administration of virtually all the government-held tracts of the Naval Petroleum Reserves to the Department of the Interior. Surface rights, title, and interest of a roughly 167-acre parcel would be transferred to the city of Taft, CA. The federal government would retain rights to all fossil fuel and mineral resources for itself or its lessees, but would yield all surface rights and responsibilities for care of the surface. The Executive Order of December 13, 1912, establishing NPR-2 would be revoked.	No provision.	The National Defense Authorization Act for FY1996 (P.L. 104-106) authorized sale of the federal interest in the oil field at Elk Hills, CA (Naval Petroleum Reserve-1 (NPR-1)). Transfers of other NPR sites have followed in subsequent years. This leaves in the Naval Petroleum Reserves program two small oil fields in California and Wyoming, which will generate estimated revenue to the government of roughly $7.2 million during FY2005. The Kern County site (NPR-2) comprises a "checkerboard" pattern of government and privately owned tracts adjacent to the Elk Hills field. Of the 50 tracts owned by the government, nearly 90% are leased by private oil companies with royalty payments deposited in the U.S. Treasury.

Miscellaneous Provisions

Provision	House	Senate	Comments
Split-Estate Federal Oil and Gas Leasing	*Sec. 2051.* The Secretary of the Interior would conduct a review of how management practices by federal subsurface oil and gas development activities affect privately owned surface users. The review would detail the rights and responsibilities	*Sec. 1321.* Same except it would include an analysis of state laws that address split-estates.	

Provision	House	Senate	Comments
and Development Practices	of surface and subsurface owners, compare consent provisions under the Surface Mining Control and Reclamation Act of 1977 with provisions for oil and gas development, and make recommendations that would address surface owner concerns.		
Royalty Payments Under Certain Leases	*Sec. 2052.* The lessee of a "covered lease tract" off the coast of Louisiana would be allowed to withhold royalties due to the United States if it paid the state of Louisiana 44 cents for every dollar of the federal royalty withheld. This royalty relief would end when certain drainage claims were satisfied.	No similar provision.	
Domestic Offshore Energy Reinvestment	*Sec. 2053.* This would add a new Section 32 at the end of the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et. seq.) to return a portion of the federal revenues from offshore energy activities to affected coastal states to fund specified activities. This section would create a new Domestic Offshore Energy Reinvestment Program, funded by a new Secure Energy Reinvestment Fund. Revenues for the fund, subject to appropriation, would include $35 million in royalty income each year, plus all royalty income above a specified amount that would generally increase annually, bonus bid income above $880 million each year, and interest income earned by the fund. Each year beyond FY2015 the Secretary of the Treasury would deposit 25% of all qualified revenues of the preceding year into the fund plus investment interest earned. Coastal states where energy activities occur offshore and coastal political subdivisions in those states would be eligible to receive money from the fund. Allocations among eligible states would be determined by a formula that accounts for energy revenues generated offshore in federal waters that lie between outward extensions of the state's lateral boundaries over the past 10 years.	*Sec. 371.* Similar, but would amend Section 31 of the OCSLA (43 U.S.C. 1356a). The Secretary would annually disburse to producing states and political subdivisions $25 million for FY2007-FY2010. Allocations for each producing state and political subdivision as well as authorized uses would be established.	Representatives of states with offshore energy development have been seeking to return a significant portion of the federal revenues generated to these states, and particularly the coastal areas within these states that may be more affected by onshore and near-shore activities that support that development. Proponents of these proposals look to the rates at which funds are given to jurisdictions where energy development occurs on federal lands, and seek revenues that will help coastal states respond to adverse onshore effects of offshore energy development. Coastal destruction has received more attention in Louisiana, where many square miles of wetlands are being lost to the ocean each year. A federal program to address the impacts of coastal energy development was enacted during the energy crisis of the late 1970s. Called the Coastal Energy Impact Assistance Program, it operated briefly, providing loans and grants to states through the federal Coastal Zone Management Program. There is no comparable program operating under in current law. **(For more information see Appendix K.)**
Repurchase of Leases That Are Not Allowed To Be Explored or Developed	*Sec. 2054.* Under certain circumstances any federal lease (oil, gas, coal, tar sands, etc.) if not allowed to be explored or developed would be authorized for repurchase and cancellation by the Secretary of the Interior.	No similar provision.	

Provision	House	Senate	Comments
Limitation on Required Review Under NEPA	*Sec. 2055.* Certain activities would not be subject to NEPA if the activity is conducted for the purpose of exploration or development of a domestic federal energy resource.	No similar provision.	

Coal—Resources

Provision	House	Senate	Comments
Short Title	*Sec. 2101.* Coal Leasing Amendments Act of 2005	No similar provision.	These sections would modify federal coal leasing procedures to encourage greater coal production on federal lands. Issues raised by these provisions include their impact on regional competition and returns to the U.S. Treasury. - Under the Mineral Leasing Act of 1920 (30 U.S.C. 203), modifications to an existing coal lease would not exceed 160 acres or add acreage larger than that in the original lease. Coal leases are subject to diligent development requirements, but the Secretary of the Interior may suspend the condition upon payment of advance royalties. Advance royalties are computed on a fixed production reserve ratio, and the aggregate number of years advance royalties may be accepted in lieu of production is 10. An operation and reclamation plan must be submitted within three years after a lease is issued under the Leasing Act (30 U.S.C. 207). Financial assurance is required to guarantee payment of bonus bid installments (30 U.S.C. 201 (a)).
Lease Modifications	Sec. 2102. The House-passed bill would repeal the 160-acre limitation on coal lease modifications. The total area added to an existing coal lease through a modification could not exceed 1,280 acres or add acreage larger than the original lease.	*Sec. 411*. Similar provision.	
Approval of Logical Mining Units	*Sec. 2103.* Criteria would be established for extending the mine-out period of a coal lease beyond 40 years.	Sec. 412. Same.	
Payment of Advance Royalties	*Sec. 2104.* The Secretary of the Interior could upon payment of an advance royalty, suspend a coal lessee's requirement for continuous operation. Advance royalties would be based on the average price of coal	*Sec. 413*. Similar provision.	

Provision	House	Senate	Comments
	sold on the spot market from the same region, and the aggregate number of years advance royalties could be accepted in lieu of production would not exceed 20.		
Elimination of Deadline	*Sec. 2105.* The current three-year deadline for submission of a coal lease operation and reclamation plan would be repealed.	Sec. 414. Same.	
Financial Assurances on Bonus Bids	*Sec. 2106.* The financial surety bond or other financial guarantee for a bonus bid would no longer be required.	No similar provision.	
Inventory Requirement	*Sec. 2107.* The Secretary of the Interior, in consultation with the Secretaries of Agriculture and Energy, would be required to assess coal on public lands, including low-sulfur coal and various impediments to developing such resources.	No similar provision.	
Application of Amendments	*Sec. 2108.* Amendments made under this provision would apply to any coal lease issued before, on, or after the date of enactment.	*Sec. 416.* Similar but would specify how amendments would affect coal leases issued before the date of enactment of this act.	
Resolution of Resource Development Conflicts in the Powder River Basin	*Sec. 2109.* The Secretary of the Interior would report to Congress on plans to resolve conflicts between development of coal and coalbed methane in the Powder River Basin.	Sec. 1322. Same	
Transportation Fuels from Illinois Basin Coal	No similar provision.	*Sec. 415.* A program would be established to evaluate the commercial and technical viability of producing Fischer-Tropsch fuels for transportation from Illinois basin coal. A gasification test center would be constructed and $85 million would be authorized for years FY2006-FY2010.	

Energy Development in Arctic Refuge

Provision	House	Senate	Comments
Short Title	*Sec. 2201.* The short title is the "Arctic Coastal Plain Domestic Energy Security Act of 2005."	No similar provision.	Section 1003 of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA, P.L. 96-487, 94 Stat. 2371) prohibited oil and gas development in the entire Arctic National Wildlife Refuge (ANWR), or "leasing or other development leading to production of oil and gas from the range" unless authorized by an act of Congress. Section 1002 required a legislative environmental impact statement on proposed development and its potential effects. The Final Legislative Environmental Impact Statement (FLEIS) and a recommendation to proceed to full development was issued in 1987. Under current law for the management of national wildlife refuges (16 U.S.C. §668dd), and under 43 C.F.R. §3101.5-3 for Alaskan refuges specifically, an activity may be allowed in a refuge only if it is compatible with the purposes of the particular refuge and with those of the Refuge System as a whole. In the 25 years since the passage of ANILCA, various unsuccessful attempts have been made to pass ANWR development legislation.
Definitions	*Sec. 2202.* The ANWR *Coastal Plain* would be defined as approximately 1.5 million acres as identified under ANILCA, and described in Appendix I to Part 37 of Title 50 C.F.R. "Secretary" would be defined as the Secretary of the Interior.	No similar provision.	The Appendix refers to the legal boundaries of the Coastal Plain that were administratively drawn to exclude the three townships selected by the Kaktovik Inupiat Corporation (KIC, an Alaska Native Village Corporation) from the defined Coastal Plain. However, the lands are within the geographical limits of the "coastal plain." Also under ANILCA, KIC was entitled to select a fourth township, for a total of approximately 92,000 acres. In addition, there are over 10,000 acres of Native-owned *allotments* in the Refuge. These are basically surface ownerships, with the federal government reserving the oil, gas, and coal rights. Although allotments were originally restricted titles, under P.L. 108-337, allotments may now be subdivided and dedicated as if the surface estate were held in unrestricted, fee-simple title—a fact that could facilitate development on them if the Refuge is opened.
Leasing Program	*Sec. 2203.* This section would direct the Secretary to establish the leasing program subject to various conditions, described below.	No similar provision.	

Provision	House	Senate	Comments
Establishment of Leasing Program and Repeal of Leasing Prohibition	*Sec. 2203(a) and (b).* Acting through the Bureau of Land Management and in consultation with the Fish and Wildlife Service, the Secretary would be required to establish a competitive oil and gas leasing program under the Mineral Leasing Act (30 U.S.C. §181 et seq.) for the Coastal Plain; the program is to result in "no significant adverse effect" on specified environmental and subsistence resources, and leasing is to be conducted in "a manner that ensures the receipt of fair market value by the public for the mineral resources to be leased." Section 1003 of ANILCA would be repealed.	No similar provision.	
Compatibility with Purposes of Refuge; NEPA Requirements; No Effect on State Authorities	*Sec. 2203(c) and (d).* Subsection 2203(c) states that the oil and gas leasing program and activities in the Coastal Plain are deemed to be compatible with the purposes for which ANWR was established and that no further findings or decisions are required to implement this determination. - Subsection (c) would also declare that the FLEIS is deemed to satisfy the requirements of NEPA with respect to actions by the Secretary to develop and promulgate leasing regulations, yet would require the Secretary to prepare an Environmental Impact Statement (EIS) with respect to other actions, some of which might usually require only a (shorter) environmental assessment. Consideration of alternatives would be limited to two choices, a preferred option and a "single leasing alternative." (Generally, an EIS analyzes several alternatives, including a "no action" alternative.) - Subsection (d) would declare that the title does not expand or limit state regulatory authority.	No similar provision.	The language of subsection (c) appears to answer the compatibility question and to eliminate the usual compatibility determination processes. The extent of leasing "activities" that might be included as compatible is debatable: At issue would be whether the term encompasses, for example, necessary support activities, such as construction and operation of port facilities, staging areas, and personnel centers.
Special Areas	*Sec. 2203(e) and (f).* Subsection (e) would allow the Secretary to set aside up to 45,000 acres (and names one specific special area that must be designated) in which leases, if permitted, must prohibit surface occupancy. The FLEIS identified four special areas which together total more than 52,000 acres, so the Secretary would be required to select among these areas or any others that may seem significant. Section 2203(f) also would state that the closure authority in the ANWR title is	No similar provision.	

Provision	House	Senate	Comments
	the Secretary's sole closure authority, which might limit possible secretarial actions under the Endangered Species Act.		
Issuance and Revision of Regulations	*Sec. 2203(g).* Regulations would be required to be issued within 15 months of enactment, and reviewed and revised periodically in light of any significant biological, environmental, or engineering data coming to the Secretary's attention.	No similar provision.	
Leasing Procedures, Bidding System, Minimum Acreage	*Sec. 2204.* The Secretary would establish procedures (a) to receive and consider nominations for areas to be included in a lease sale, (b) to hold the sales, and (c) provide for public notice and comment. The bidding system would be by sealed competitive cash bonus bids, and the first offering would total at least 200,000 acres. The first sale would be conducted within 22 months of enactment, with additional sales thereafter as industry interest warranted.	No similar provision.	
Grant of Leases	*Sec. 2205.* The Secretary could grant leases to the highest responsible qualified bidder. Leases could not be transferred to another party without approval of the Secretary, acting in consultation with the Attorney General.	No similar provision.	
Terms and Conditions of Leases; Project Labor Agreements	*Sec. 2206.* Under §2206(a), leases would provide for at least a 12.5% royalty payment; allow for seasonal closure of the Coastal Plain to exploratory drilling to protect caribou calving areas and other species; require lessees to be responsible for reclamation of adversely affected lands in the Coastal Plain; and provide that lessees could not delegate their obligation to reclaim lands without written approval of the Secretary. The subsection would further require that the reclamation standard be an ability to support the uses of the land before exploration and development, or "a higher or better use" as approved by the Secretary, and that the lease contain fish, wildlife, and environmental protection standards as required in §2203(a)(2). The subsection would require that lessees use their best efforts to provide employment and contracts to Alaska Natives and Native Corporations, and would prohibit export of oil produced under the lease. - Subsection 2206(b) would direct the Secretary to require lessees to negotiate project labor agreements (PLAs)—"recognizing the Government's proprietary interest in labor stability and the ability of	No similar provision.	

Provision	House	Senate	Comments
	construction labor and management to meet the particular needs and conditions of projects to be developed ....” (A PLA is an agreement between a project owner or main contractor and the union(s) representing the craft workers for a particular project; it establishes the terms and conditions of work that will apply for the particular project.)		
Environmental Protection	*Sec. 2207.* This section contains most (but not all) of the environmental protection provisions of the title.	No similar provision.	
No Significant Adverse Effect; 2,000-Acre Limit	*Sec. 2207(a).* Subject to the requirements in §2203 (see above), the Secretary would ensure that oil and gas activities on the Coastal Plain resulted in “no significant adverse impact” on fish, wildlife, their habitat, and the environment; require use of best commercially available technology; and “ensure that the maximum amount of surface acreage covered by production and support facilities, including airstrips and any areas covered by gravel berms or piers for support of pipelines, does not exceed 2,000 acres on the Coastal Plain.”	No similar provision.	This provision has been a focus of considerable debate concerning (a) its applicability to the more than 100,000 acres of Native lands in the Refuge, (b) the facilities that would be limited; and (c) the economic and practical impacts of such a limitation. For more information, see CRS Report RS22143, *Oil and Gas Leasing in the Arctic National Wildlife Refuge (ANWR): the 2,000-Acre Limit.*
Assessment and Mitigation	*Sec. 2207(b).* The Secretary would have to require a site-specific analysis of the probable effects of drilling and other activities on fish, wildlife, and the environment; and a plan to avoid or reduce any significant adverse effect on these resources. The plan’s developer would have to consult with any agencies with jurisdiction over matters mitigated in the plan.	No similar provision.	
Promulgating Regulations	*Sec. 2207(c).* Before implementing the leasing program, the Secretary would be required to promulgate “regulations, lease terms, conditions, restrictions, prohibitions, stipulations, and other measures” to ensure that activities on the Coastal Plain under this title were consistent with the title’s environmental requirements and purposes.	No similar provision.	
Compliance with Other Environmental Laws and Requirements	*Sec. 2207(d).* This subsection would set out 21 requirements for the environmental standards in the leasing program, to be implemented through regulations, lease terms, etc. These requirements would include, among other things: complying with all applicable state and federal environmental laws; setting appropriate seasonal limits on operations; prohibiting public access via specified roads or other modes of transportation; consolidating facilities; treating and disposing of specified wastes, avoiding (to the extent practicable) streams, rivers, wetlands,	No similar provision.	

Provision	House	Senate	Comments
	etc.; complying with reasonable stipulations for cultural and archeological resources; and other requirements.		
Documents To Be Considered by Secretary	*Sec. 2207(e).* In developing the regulations, lease terms, etc., the Secretary is to consider stipulations and standards in three specified documents.	No similar provision.	The documents are (1) the 1999 Northeast National Petroleum Reserve-Alaska Final Integrated Activity Plan/Environmental Impact Statement, (2) the environmental protection standards that governed the initial Coastal Plain seismic exploration program, and (3) Appendix 2 of the August 9, 1983, agreement between Arctic Slope Regional Corporation and the United States.
Consolidation of Facilities	*Sec. 2207(f).* The Secretary would be directed to develop and update a plan to consolidate facilities, avoid unnecessary duplication, site activities to minimize their environmental impacts, and use existing facilities where practicable.	No similar provision.	
Access to Coastal Plain	*Sec. 2207(g).* The Secretary would be required to manage the Coastal Plain to allow subsistence access, including the use of snowmobiles and motorboats (16 U.S.C. §3121), and to allow local residents generally to have "reasonable access" to the Coastal Plain for traditional uses.	No similar provision.	
Expedited Judicial Review	*Sec. 2208.* Section 2208 would require that any complaints seeking judicial review be filed within 90 days. Section 2208(a)(3) would limit the scope of review by stating that review of a Secretarial decision, including environmental analyses, would be limited to whether the Secretary complied with the terms of the ANWR Title, be based on the administrative record, and that the Secretary's analysis of environmental effects is "presumed to be correct unless shown otherwise by clear and convincing evidence to the contrary."	No similar provision.	Subsections (a)(1) and (a)(2) appear to contradict each other as to where suits are to be filed. - The standard set forth in §2208(a)(3) for review is unclear, but in this context arguably would make overturning a decision more difficult.
Federal and State Distribution of Revenues; Low Income Home Energy Assistance	*Sec. 2209.* This section would provide that 50% of adjusted revenues be paid to Alaska, and the balance deposited in the U.S. Treasury as miscellaneous receipts, except for part of the federal share of bonus bids that would be available to be appropriated for low income home energy assistance, and a portion (not to exceed $11 million in an unspent balance, with $5 million available for annual appropriation) that would go into a fund to assist Alaska communities under §2212 in addressing local impacts of energy development (see below). Section 2209(c) would allow certain revenues from bids for leasing to be available for appropriation for energy assistance for low-income households under 42 U.S.C. §8621.	No similar provision.	Sec. 312 of the Senate bill includes a preference for using royalty oil and gas to benefit any federal low-income energy assistance program. For more information on the LIHEAP program; see CRS Report RL31865, *Low Income Home Energy Assistance Program (LIHEAP): Program and Funding*.

Provision	House	Senate	Comments
Rights of Way Across the Coastal Plain	*Sec. 2210.* This section would declare that the provisions of 16 U.S.C. §3161 (an ANILCA provision containing a congressional finding in support of a single comprehensive statutory authority for approval of transportation systems) would not apply to oil and gas transportation on the Coastal Plain. The Secretary would have to ensure that rights of way and easements would not cause significant adverse effects on fish, wildlife, subsistence resources, and the environment, and that facilities were sited or designed to avoid unnecessary duplication of roads and pipelines. Appropriate regulations would have to be issued within 15 months of enactment, as required in §2203(g).	No similar provision.	
Surface and Subsurface Estate Conveyance to Native Corporations	*Sec. 2211.* The Secretary would be required to convey certain additional surface rights to the Kaktovik Inupiat Corporation and certain subsurface rights to the Arctic Slope Regional Corporation.	No similar provision.	
Local Government Impact and Community Service Assistance	*Sec. 2212.* The Secretary would be authorized to use funds from the Coastal Plain Local Government Impact Aid Assistance Fund for financial assistance to eligible entities as a result of oil and gas exploration and development in the Coastal Plain. A maximum of $5 million could be appropriated each year; the unappropriated balance in the fund would be limited to a maximum of $11 million.	No similar provision.	Under §2203(a), the Secretary is to establish and implement a leasing program *under the Mineral Leasing Act,* yet §2212 directs a revenue sharing program different from that in the MLA, which may raise validity questions. If the alternative disposition were struck down and the revenue provisions were determined to be severable, Alaska could receive 90% of ANWR revenues.

Set America Free (SAFE)

Provision	House	Senate	Comments
Short Title and Findings	*Secs. 2301-2302.* The Set America Free Act of 2005. The findings in this title would recognize predictions of growing energy consumption and dependence upon imported oil, and the accompanying risks.	No similar provision.	
Purpose	*Sec. 2303*. A U.S. commission would make recommendations for "a coordinated and comprehensive North American energy policy that will achieve energy self-sufficiency by 2025" for not only the United States but Canada and Mexico as well.	No similar provision.	

Provision	House	Senate	Comments
United States Commission on North American Energy Freedom	*Sec. 2304*. The panel would be called United States Commission on North American Energy Freedom. Citizens of any of the three nations may be among the 16 appointees to the commission, which would submit a report on findings and recommendations within a year. $10 million would be authorized for two fiscal years to carry out the act.	No similar provision.	
North American Energy Freedom Policy	*Sec. 2305*. The President would submit a response or set of recommendations pursuant to the commission's report within 90 days of receipt of the report.	No similar provision.	

Grand Canyon Hydrogen-Powered Transportation Demonstration

Provision	House	Senate	Comments
Grand Canyon Hydrogen-Powered Transportation Demonstration	*Sections 2401-2406*. The Secretaries of Energy and the Interior would be required to establish a research and development program relating to hydrogen-based transportation technologies suitable for operations in sensitive areas such as national parks.	No comparable provision.	
	Sec. 2405. Over the duration of the program, the Secretaries would report to Congress annually on ongoing and planned activities.	No comparable provision.	
	Sec. 2406. A total of $1.2 million would be authorized over three years for the program.	No comparable provision.	

Additional Provisions

Provision	House	Senate	Comments
Wind Energy Royalty Relief	Sec. 2501. This provision, which was added as a floor amendment (H.Amdt. 97), would reduce by 50% any royalty payments, excluding the costs of processing the rights-of-way, for wind energy generation on BLM lands that otherwise would be paid to the Treasury. This royalty relief provision would terminate after 10 years of enactment or after the Secretary of the Interior declared that at least 10,000 megawatts of electricity was available from renewable sources on public lands, whichever is sooner.	No comparable provision.	

Studies

Provision	House	Senate	Comments
Alaska Natural Gas Pipeline	No similar provision.	*Sec. 1303.* Within six months of enactment, and every six months thereafter, FERC would be tasked with submitting a report to Congress describing progress in licensing and construction, and identifying issues impeding progress.	
Backup Fuel Capability Study	No comparable section.	*Sec. 1306.* This section would authorize DOE to study the effect of obtaining and maintaining liquid and other fuel backup capability at gas-fired power generation facilities, and other gas-fired industrial facilities. The study would also address methods Federal and State governments might use to encourage installation of backup fuel capability. The study would also identify changes required in the Clean Air Act (42 U.S.C. 7401 et seq.) to allow natural gas generators to add clean backup fuel capabilities. The effect on the supply and cost of natural gas would be analyzed. DOE would report on the study along with recommendations within 1 year.	
Indian Land Rights-of-Way	No comparable section.	*Sec. 1307.* DOE and DOI would conduct a joint study in consultation with stakeholders of issues regarding energy rights-of-way on tribal land. Within 1 year of enactment they would submit a report to Congress analyzing historic rates of compensation paid for energy rights-of-way on tribal land. The report would offer recommendations for appropriate standards for fair compensation to tribes and would offer an assessment of the tribal self-determination and sovereignty interests implicated.	
Mobility of Scientific and Technical Personnel	No comparable section.	*Sec. 1311.* Within 2 years, DOE would report on the policies and procedures of contractors operating a National Laboratory or research facility that interfere with the transfer of scientific and technical personnel among the Laboratories or facilities; and would recommend means of facilitating interlaboratory exchange of scientific and technical personnel.	
National Academy of Sciences Report	No comparable section.	*Sec. 1312.* Within 90 days, DOE would arrange for the National Academy of Sciences to study and identify obstacles to accelerating the research, development, demonstration, and commercial application cycle for energy technology; and the adequacy of DOE policies and procedures for resolving technology transfer-related disputes between DOE's contractors and the private sector. The Academy report would make recommendations to Congress.	
Report on Research and Development Program Evaluation Methodologies	No comparable section.	*Sec. 1313.* Within 180 days, DOE would arrange with the National Academy of Sciences to investigate and report on the scientific and technical merits of any evaluation methodology currently in use or proposed for use in relation to the scientific and technical programs of DOE by the Secretary or other Federal official; The Academy study would include any other views or plans regarding the future use of the evaluation methodology.	
Natural Gas Supply Shortage Report	No similar provision.	*Sec. 1320.* Within 6 months of enactment, the Secretary of Energy is directed to submit to Congress a report on supply of, and demand for natural gas over the period 2004-2015. The report would analyze all aspects of gas markets, as well as policy options for conservation, technology development and other factors that would affect supply and demand. - The secretary would be called upon to consult with industry and academic experts, and representatives of state and local governments, and tribal and consumer organizations.	

Provision	House	Senate	Comments
Study of Availability of Skilled Workers	No comparable section.	*Sec. 1337.* The National Academy of Sciences would be required to study the short-term and long-term availability of skilled workers to meet the energy and mineral security requirements of the United States. The study would assess the availability of skilled labor at both entry level and more senior levels. Submission of the study to Congress would be required within two years, and would include recommendations for future actions needed to meet future labor requirements.	

Incentives for Innovative Technologies

Provision	House	Senate	Comments
Definitions	No comparable provision	*Sec. 1401.* This section would define "commercial technology" to mean a technology in general use in the commercial marketplace, but not a technology in a demonstration project funded by DOE. "Cost" would be defined in terms of "cost of a loan guarantee" within the meaning of section 502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)). An "Eligible project" is described in section 1403. "Guarantee" would be defined in terms of "loan guarantee" in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a), and includes a loan guarantee commitment (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)). "Obligation" means the loan or other debt obligation that is guaranteed under this section.	
Terms and Conditions	No comparable provision.	*Sec. 1402.* This section would guarantee a loan for projects under this title only if an appropriation for the cost has been made, or a full payment received from the borrower for the cost of the obligation has been deposited into the Treasury. The loan guarantee would not exceed an amount equal to 80% of the project cost of the facility that is the subject of the guarantee. The Secretary would make determinations that there is a reasonable prospect of repayment of the principal and interest by the borrower and that the amount of the obligation (when combined with amounts available to the borrower from other sources) would be sufficient to carry out the project. The interest rate would not exceed the prevailing private sector interest rate for similar loans and risks. The obligation would require full repayment over a period not to exceed the lesser of 30 years, or 90% of the projected useful life of the financed physical asset. If a borrower defaults on the obligation, the holder of the loan guarantee could demand payment from the Secretary under conditions of repayment that account for unpaid interest and unpaid principal, and permit loan forbearance.	
Eligible Projects	No comparable provision	*Sec. 1403.* This section would provide loan guarantees for projects that avoid, reduce, or sequester air pollutants or greenhouse gas emissions, and employ new or significantly improved technologies. These technologies would include: renewable energy systems; advanced fossil energy (including coal gasification); hydrogen fuel cell for home, industry or transportation; advanced nuclear energy facilities; carbon capture and sequestration; efficient electrical generation, transmission, and distribution; efficient end-use energy; and production facilities for fuel-efficient vehicles. Guarantees would be made for integrated combined cycle gasification projects which generate electricity, produce energy from coal (of not more than 13,000 Btu/lb and mined in the western U.S.), and are located in a taconite-producing region of the United States. Facilities that generate gasification streams used in a Fischer-Tropsch process to produce ultra-clean premium fuels would be eligible for loan guarantees, as would industrial projects that gasify coal, biomass, or petroleum coke to produce synthesis gas fuel for which electricity accounts for at least 65% of the useful energy output.	

Provision	House	Senate	Comments
		Clean coal technologies receiving tax credits would not be disqualified from receiving a guarantee under this title.	
Authorization of Appropriations	No comparable provision.	*Sec. 1404.* This section would authorize appropriated sums as necessary to provide the cost of guarantees under this title.	

Climate Change

National Climate Change Technology Deployment

Provision	House	Senate	Comments
Greenhouse Gas Intensity Reducing Technology Strategies	No comparable section.	*Sec. 1601.* Would amend Title XVI of the 1992 Energy Policy Act to add a new Section 1610 that would establish a new governmental structure to develop a national response strategy to promote technologies and practices to reduce greenhouse gas intensity, coordinate federal climate change activities, identify barriers to technologies that improve carbon intensity and implement a technology deployment program. The Secretary of Energy would establish an Interagency Coordinating Committee on Climate Change Technology within 180 days of enactment and the Director of the Office of Science and Technology Policy would submit a national deployment strategy within 18 months of enactment. Within 180 days of receipt of the strategy, the Secretary would establish a Climate Change Technology Program to assist the Committee in coordinating necessary deployment activities, and a Climate Change Science Program to assist the Committee in coordinating science related activities. Upon receipt of the Strategy, the Secretary is also to conduct an inventory of suitable carbon-intensity-reducing technologies. In addition, the Secretary would establish a DOE Climate Change Technology Working Group to identity barriers to deployment of carbon intensity reducing technologies. Using the inventory and study of deployment barriers, the Committee is to develop a program for providing credit-based incentives to eligible technologies based on criteria outlined in the section.	
Climate Infrastructure Credit	No comparable provision.	*Sec. 1602.* Would amend Title XVI of the 1992 Energy Policy Act to add a new Section 1611 that would establish a technology deployment program to promote technologies and practices to reduce greenhouse gas intensity. The program would be implemented through a Climate Credit Board created within the DOE. The technology deployment program would have an array of incentives available to encourage demonstration and deployment, including direct loans, loan guarantees, lines of credit, and production-incentive payments. - Eligible projects could also receive protection against what the section calls "regulatory failure," where the federal or state siting process delays a project beyond a time frame specified by DOE. Eligible projects include coal gasification and liquefaction, carbon	

Provision	House	Senate	Comments
		sequestration, cogeneration technology, advanced nuclear power, lower emission transportation, renewable energy, and transmission upgrades.	

Climate Change Technology Deployment in Developing Countries

Provision	House	Senate	Comments
Climate Change Technology Deployment in Developing Countries	No comparable section.	*Sec, 1611.* This section would amend the Global Environmental Protection Assistance Act of 1989 by adding a new Part C entitled "Technology Deployment in Developing Countries." It would set up a complimentary program designed to encourage U.S. exports of technology to reduce greenhouse gas intensity in developing countries. The Department of State would be the lead agency to identify and inventory 25 greenhouse gas emitting developing countries within 180 days of enactment, and update the information every 18 months. The Secretary of State would also provide assistance, either directly or through international agencies, to greenhouse gas intensity reducing projects. The Secretary of State would also coordinate demonstration projects in at least 10 eligible countries according to criteria identified by the section. - The United State Trade Representative would be required to identify and negotiate removal of trade barriers to export of greenhouse gas intensity reducing technology in developing countries. - An interagency working group would be established to implement a Greenhouse Gas Intensity Reducing Technology Export Initiative to promote U.S. exports of such technologies to developing countries.	Authorization of appropriations are such sums as necessary to carry out this part (other than section 736). Section 736 is the proposed State Department demonstration program section for 10 eligible countries. No specific authorization for appropriations is provided by the bill for that program.
Sense of the Senate on Climate Change	No comparable section.	*Sec. 1612.* This section is a Sense of the Senate resolution that human activities are a substantial cause of greenhouse gas accumulating in the atmosphere, resulting in average temperatures to rise outside natural variability, and that mandatory steps are required to slow or stop the growth in emissions.	

Index of Senate Sections

House sections in italics have no comparable Senate section. Rather, they are the closest House section before the indicated Senate section.

Senate bill	House bill
101	101
102	102
103	103
104	104
105	105
106	107
107	109
108	*109*
121	122
122	123
123	124
124	125
125	126
126	*126*
127	*126*
131	131
132	132
133	*132*
134	*132*
135	136
135	133
136	*133*
137	*133*
138	134
139 - 143	*137*
151	*1616*
161	144
162	147
163	148
164	149
201	201
202	202
203	203

Senate bill	House bill
211	1501
211(a)	1502(a)
212(b)	1501(c)
212(c)	1511
212(d)	*1512*
212(f)	1512
213	1508
222(a)	1525
222(b)	1526
222(b)	1531(2)
223(c)	1504
223(c)	1503
223(c)	*1505*
224(a)	1506(a)
224(b)	1506(b)
224(c)	1513
224(d)	1506(c)
225	*1506*
226	1507
227	*204*
228	*204*
229	1510
230	*1513*
231	209
232	1452
233	126
234	*1513*
241 - 245	204
251 - 254	1701 located after 206
251	1701(b)
252	1701(c)
252(e)(f)	1701(e)
253	1701(d)
254	1701(f)
261	1802
262	1803
263	1804

Senate bill	House bill
264	1806
265	1809
266	1810
267	1811
268	1814
269	1816
270	1815
271	*1820*
272	1819
281	231
282	*243*
283	*243*
291	*209*
301	304
301	301
302	302
303	*304*
311	2001
312	2002
313	2003
314	2004
315	2005
316	2006
317	2007
318	*2007*
319	2008
320	2009
321	2010
321	*329*
322	2011
323	2012
324	*1616*
325	*1452*
326	*2019*
327	2017
328	*334*
341	2022

Senate bill	House bill
342	2023
343	2024
344	2026
345	2029
346	2018
347	*2033*
348	*2033*
371	2053
381	320
382	*330*
383	*330*
384	332
385	332
386	333
387	2013
388	*333*
389	332
391	358
401	401
402	402
403	403
404	404
405	*404*
406	411
407	412
411	2102
412	2103
413	2104
414	2105
415	*2109*
416	2108
501	501
502	502
503	503
504	505
505	*505*
506	504

Senate bill	House bill
601	601
602	602
603	603
604	604
605	605
606	606
607	607
608	608
609	609
610	611
621	633
622	635
623	636
624	*640*
625	632
631 - 635	651
701	701
702	*701*
703	704
704	*704*
705	707
706	*731*
711	772
712	771
713	*772*
714	773
721	711
722	754
723	*707*
724	*707*
725	*707*
731	751
732	755
733	756
734	757
735	1614
741	*811*

Senate bill	House bill
742	*811*
743	*811*
751 - 757	743A
801	801
801	809
901 - 903	900
911(a,b & c)	930
911(d)	931
912	928
913	*924*
914	927
915	*922*
916	924(c)
921	934
922	*933A*
923	932(b)
924	*932*
925	933
931	945
932	939
933	*945*
934 - 935	938
936	943
937	939
938 - 944	*939*
945	956
946	947
946	951
946	955
946	954
946	953
946	952
947	948
948	949
948	950
949 - 950	*957 - 961*
951	968

Senate bill	House bill
952	964
953 - 955	*968D*
956	441
957	967
958	*968D*
961	910
962	906
963	*900*
964	903
965	904
966	*904*
967	905
968	902
969 - 971	*906*
981	968B
982	1450
1001	921
1002	911
1003	913
1004	914
1005 - 1006	*920*
1007 - 1008	*1003*
1009	*921*
1010	*920*
1011	1002
1012 - 1013	*921*
1101 - 1103	*907*
1104	*1298*
1105	*924*
1106	*907*
1107	*1298*
1201	1201
1211	1211
1221	1221
1222	1222
1223	1224
1224	1226

Senate bill	House bill
1231	1231
1232	1232
1233	1234
1234	1235
1235	1236
1236	*1237*
1241	1241
1242	*1241*
1251	1251
1252	1252
1253	1253
1254	1254
1261	1281
1262 - 1263	1282
1264	1283
1265	1284
1266	1286
1266	1285
1267	1287
1268 - 1270	*1287*
1271	1261
1272	1262
1273	1263
1274	1264
1275	1265
1276	1266
1277	1267
1278	1268
1279	1269
1280	1270
1281	1271
1282	1272
1283	1273
1284	1274
1285	1275
1286	1276
1287	1277

Senate bill	House bill
1288	1292
1291	1295
1292	*1297*
1295	1297
1301	*1616*
1302	1901
1303	*2501*
1304	*1616*
1305	*968D*
1306 - 1307	*2501*
1308	706
1309	774
1310	*1616*
1311 - 1313	*2501*
1314	1223
1315	*1298*
1316	1298
1316	1237
1317 - 1318	*1298*
1319	1601
1320	*2501*
1321	2051
1322	2109
1323	1605
1324	1606
1325	1608
1326	1609
1327	1003
1327	1610
1328 - 1330	*1616*
1331	*1298*
1332	*1616*
1333	*1287*
1334 - 1335	*1616*
1336	*775*
1337	*2501*
1338	*1616*

Senate bill	House bill
1401 - 1404	*2501*
1500	1300
1501 - 1504	*1313*
1503	*1306*
1505	*1306*
1506	*1303*
1507	*1306*
1508 - 1509	*1313*
1511	*1313*
1512 - 1514	*1322*
1515	1302
1521	*1312*
1522	*1317*
1523 - 1524	*1312*
1525	*1317*
1526	*1317*
1527	1311
1528	1312
1529	*1312*
1531	1316
1532 - 1535	*1316*
1541	*1302*
1542	*1313*
1543 - 1544	*1316*
1545	*1313*
1546	*1303*
1547	1304
1548 - 1549	*1313*
1550	*1313*
1551	*1313*
1552 - 1554	*1316*
1561 - 1573	*1313*
1601	*2501*
1602	*2501*
1611	*2501*
1612	*2501*

Appendix A. : Hydraulic Fracturing (Sec. 327 House Bill)

Before 1997, EPA had not considered regulating hydraulic fracturing for oil and gas development, because it did not view this well-production process as an activity subject to regulation under SDWA's UIC program. In 1997, the 11th Circuit Court of Appeals ruled that the injection of fluids for the purpose of hydraulic fracturing constituted underground injection, that all underground injection must be regulated, and that hydraulic fracturing of coalbed methane (CBM) wells in Alabama must be regulated under the state's UIC program (*LEAF v. EPA*, 118 F. 3d 1467).

Hydraulic fracturing involves the high-pressure injection of fluids into coal beds to enhance the recovery of oil and natural gas from underground formations. Water-based fluids are typically used as fracturing fluids; however, diesel fuel often is used instead of water, and various chemicals are added to fracturing fluids.[3] While hydraulic fracturing has been used in the recovery of conventional oil and gas since the 1950s, this practice has been used for CBM recovery mainly since the 1990s.

A growing concern is that, in many CBM-producing regions, the target coal beds occur within underground sources of drinking water, and the fracturing process injects fluids directly into the drinking water sources; EPA has determined that the use of diesel fuel as a fracturing fluid introduces benzene and other toxic substances directly into underground sources of drinking water.[4] Also, because the process fractures rock, fracturing can create new pathways for natural gas (primarily methane) to enter drinking water aquifers. As the number of coalbed methane (CBM) wells and the use of hydraulic fracturing have increased rapidly in recent years, so has concern over the potential impact on water resources, particularly in the water-scarce West. Very few studies have been done to evaluate these impacts.

In 2003, EPA's National Drinking Water Advisory Council recommended that EPA work to eliminate the use of diesel fuel and related additives in fracturing fluids that are injected into formations containing drinking water sources. In 2003, EPA entered into an agreement with three companies that provide most hydraulic fracturing services (BJ Services, Halliburton Energy Services, and Schlumberger Technology Corporation).[5] Under this voluntary agreement, the companies conditionally agree to remove diesel fuel from CBM fluids injected *directly* into drinking water sources, if cost-effective alternatives are available. EPA has not sought to limit other toxic components in fracturing fluids, and other companies did not agree to cease injecting diesel fuel into drinking water sources.

The National Drinking Water Advisory Council further recommended that EPA continue to study the extent and nature of public health and environmental problems that could occur as a result of hydraulic fracturing for coalbed methane production, and defend its authority to implement the

[3] Environmental Protection Agency, *Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, Washington, D.C., June 2004, pp. 4-3 - 4-4.

[4] Environmental Protection Agency, *Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, pp. 1-6. According to EPA, hydraulic fracturing of oil and gas found in conventional geologic traps is well established, but hydraulic fracturing of coal beds is relatively new. Conventional sites are usually very deep and involve saline ground water that is unsuitable for drinking water. In contrast, formations that contain coal bed methane can be near the surface where ground water may be used as a source of drinking water supplies. pp. 4-9 - 4-10.

[5] Memorandum of Agreement Between the United States Environmental Protection Agency and BJ Services Company, Halliburton Energy Services, Inc., and Schlumberger Technology Corporation, Dec. 12, 2003.

UIC program in a manner that protects groundwater resources from contamination. However, oil and gas industry representatives argue that regulation is unnecessary and would slow natural gas development.

In 2004, EPA issued a report, based primarily on a review of the literature, that concluded that the injection of hydraulic fracturing fluids into CBM wells poses little threat to underground sources of drinking water and requires no further study; however, EPA noted that very little documented research has been done on the environmental impacts of injecting fracturing fluids.[6] EPA also noted that estimating the concentration of diesel fuel components and other fracturing fluids beyond the point of injection was beyond the scope of its study.[7] The report has been criticized by some, and the EPA Inspector General has been asked to review a whistle-blower's assertions that EPA's findings are scientifically unfounded.[8] (For more information, see CRS Report RL32873, *Selected Environmental Provisions Related to the Omnibus Energy Bill (H.R. 6), 109th Congress*, and CRS Report RL32262, *Selected Legal and Policy Issues Related to Coalbed Methane Development*.)

[6] Ibid. p. 4-1.

[7] Ibid. p. 4-12.

[8] Letter (and technical analysis) to Senators Wayne Allard and Ben Nighthorse Campbell and Representative Diana DeGette from Weston Wilson, U.S. Environmental Protection Agency, Region 8, Oct. 8, 2004.

Appendix B. Oil and Gas Exploration and Production Defined (Sec. 328, House Bill)

The issue of how oil and gas exploration and production facilities are defined in the Clean Water Act (CWA) arises from stormwater permitting rules for small construction sites and municipal separate storm sewer systems that were issued by the Environmental Protection Agency (EPA) in 1999 and became effective March 10, 2003. Those rules, known as Phase II of the CWA stormwater program, require most small construction sites disturbing one to five acres and municipal separate storm sewer systems serving populations of up to 100,000 people to have a CWA discharge permit. The permits require pollution-prevention plans describing practices for curbing sediment and other pollutants from being washed by stormwater runoff into local water bodies. Phase I of the stormwater program required construction sites larger than five acres (including oil and gas facilities) and larger municipal separate storm sewer systems to obtain discharge permits beginning in 1991.

As the March 2003 compliance deadline approached, EPA authorized a two-year extension of the Phase II rules for small oil and gas construction sites to allow the agency to assess the economic impact of the rule on that industry. In March 2005 EPA extended the exemption until June 2006 and said it would propose a specific rule for small oil and gas construction sites by September 11, 2005. EPA had initially assumed that most oil and gas facilities would be smaller than one acre in size and thus excluded from the Phase II rules, but recent Department of Energy data indicate that several thousand new sites per year would be of sizes subject to the rule.

The provision in the House-passed version of H.R. 6 is identical to one in H.R. 6/S. 2095 in the 108th Congress, making EPA's delay permanent and making it applicable to construction activities at all oil and gas development and production sites, regardless of size, including those previously covered by Phase I rules. Industry has argued that the stormwater rule creates costly permitting requirements, even though the short construction period for drilling sites carries little potential for stormwater runoff pollution. Supporters say the amendment is intended to clarify existing CWA language. Opponents argue that the provision does not belong in the energy legislation, and that there is no evidence that construction at oil and gas sites causes less pollution than other construction activities, which are regulated under EPA's stormwater program.

Appendix C. Clean Air Coal Program (Sec. 441 House, Sec. 956 Senate)

A total of $500 million over FY2006-FY2010 would be authorized for pollution control projects to control mercury, nitrogen dioxide, sulfur dioxide emissions, particulate matter, or more than one pollutant; and allow use of the waste byproducts. Additional authorizations totaling $2.5 billion over FY2007-FY2013 would be provided for projects using coal-based electrical generation equipment and processes, and associated environmental control equipment.

Project selection criteria would be based on significantly improving air quality, replacing less efficient units, and improving thermal efficiency. Up to 25% of projects would be cogeneration or other gasification projects. At least 25% of the projects would be solely for electrical generation, with priority for those generating less than 600 MW. Federal loans or loan guarantees would not exceed 30% of the total funds obligated during any fiscal year. The federal share of projects funded would not exceed 50%.

No technology funded by the program, or level of emissions reduction achieved by funded projects, would be considered adequately demonstrated for purposes of Sections 111, 169, or 171 of the Clean Air Act.

Appendix D. Price-Anderson Nuclear Liability Coverage (Secs. 601-612)

Current Law

Under Price-Anderson, the owners of commercial reactors must assume all liability for nuclear damages awarded to the public by the court system, and they must waive most of their legal defenses following a severe radioactive release ("extraordinary nuclear occurrence"). To pay any such damages, each licensed reactor must carry financial protection in the amount of the maximum liability insurance available, which was increased by the insurance industry from $200 million to $300 million on January 1, 2003. Any damages exceeding that amount are to be assessed equally against all covered commercial reactors, up to $95.8 million per reactor (most recently adjusted for inflation on August 20, 2003). Those assessments—called "retrospective premiums"—would be paid at an annual rate of no more than $10 million per reactor, to limit the potential financial burden on reactor owners following a major accident. According to the Nuclear Regulatory Commission (NRC), 103 commercial reactors are currently covered by the Price-Anderson retrospective premium requirement.

Funding for public compensation following a major nuclear incident, therefore, would include the $300 million in insurance coverage carried by the reactor that suffered the incident, plus the $95.8 million in retrospective premiums from each of the 103 currently covered reactors, totaling $10.2 billion. On top of those payments, a 5% surcharge may also be imposed, raising the total per-reactor retrospective premium to $100.6 million and the total potential compensation for each incident to about $10.7 billion. Under Price-Anderson, the nuclear industry's liability for an incident is capped at that amount, which varies depending on the number of covered reactors, the amount of available insurance, and an inflation adjustment that is made every five years. Payment of any damages above that liability limit would require congressional approval under special procedures in the act.

The Price-Anderson Act also covers contractors who operate hazardous DOE nuclear facilities. The liability limit for DOE contractors is the same as for commercial reactors, excluding the 5% surcharge, except when the limit for commercial reactors drops because of a decline in the number of covered reactors. Because two closed reactors had been covered until recently (for a total of 105), the liability limit for commercial reactors, minus the surcharge, had been $10.4 billion, which remains the liability limit for DOE contractors. Price-Anderson authorizes DOE to indemnify its contractors for the entire amount, so any damage payments for nuclear incidents at DOE facilities would ultimately come from the U.S. Treasury. However, the law also allows DOE to fine its contractors for safety violations, and contractor employees and directors can face criminal penalties for "knowingly and willfully" violating nuclear safety rules. However, Section 234A of the Atomic Energy Act specifically exempts seven non-profit DOE contractors and their subcontractors. Under the same section, DOE automatically remits any civil penalties imposed on non-profit educational institutions serving as DOE contractors.

Policy Context

The Price-Anderson Act's limits on liability were crucial in establishing the commercial nuclear power industry in the 1950s. Supporters of the Price-Anderson system contend that it has worked well since that time in ensuring that nuclear accident victims would have a secure source of compensation, at little cost to the taxpayer. However, opponents contend that Price-Anderson

subsidizes the nuclear power industry by protecting it from some or most of the financial consequences of the worst conceivable accidents.

Because no new U.S. reactors are currently planned, missing the deadline for extension has had little immediate effect on the nuclear power industry, as existing reactors continue to be covered. For the first time in more than 20 years, however, several U.S. utilities have announced that they are considering whether to build new reactors. It is unlikely that any such projects would move forward without Price-Anderson coverage. A lapse in Price-Anderson would also affect all subsequently signed DOE nuclear facility contracts, which would have to use alternate indemnification authority.

Appendix E. Electric Reliability Standards (Sec. 1211)

In both the House- and Senate-passed bills, this provision would require that FERC establish a regional advisory body if requested by at least two-thirds of the states within a region that have more than half of their electric load served within that region. The advisory body would be composed of one member from each participating state in the region, appointed by the Governor of each state, and could provide advice to the ERO or FERC on reliability standards, proposed regional entities, proposed fees, and any other responsibilities requested by FERC. The entire reliability provision would not apply to Alaska or Hawaii. Under the House version, the state of New York would be authorized to develop rules that would result in greater reliability for New York, as long as those rules do not result in lower reliability for neighboring states.

Both House- and Senate-passed H.R. 6 would require the ERO to be funded through contributions from its utility members. The Congressional Budget Office (CBO) determined that, under the Unfunded Mandates Reform Act (UMRA) of 1995,[9] these contributions would constitute an unfunded mandate both on the private sector and intergovernmentally, because both private sector utilities and those run by local governments (munis) would be obligated to contribute. The House-passed H.R. 6 would limit the total amount "of all dues, fees, and other charges collected by the ERO" to $50,000,000 annually, with no adjustment for inflation, through 2015. This limit was initially included in the House-passed H.R. 6 to avoid a point of order based on the budget resolution. UMRA limits would not apply to dues collected from Canadian utilities, and it is unclear whether the $50,000,000 limit on the ERO budget applies to fees collected from U.S. and Canadian utilities or just the U.S. utilities' contributions.[10] This limit would restrict the cost of this mandate to less than the threshold at which UMRA subjects congressional consideration of legislation containing intergovernmental mandates to a point of order. The 2005 budget for NERC and all of its regional entities, however, is $51,950,000, of which munis contributed approximately $6,370,000, and the ERO would be required to engage in functions beyond what NERC already performs. One new function is the ability of the ERO to impose and collect penalties. A $50,000,000 cap on all dues, fees, and other charges that can be collected by the ERO could limit the penalties that could be collected by the ERO.

CBO provided no separate estimate for the cost of the mandates in this subtitle, but estimated that House-passed H.R. 6 as a whole contains both intergovernmental and private sector unfunded mandates that would exceed the applicable thresholds. The CBO estimate stated that the cost of complying with intergovernmental mandates, in aggregate, could be significant and likely would exceed the threshold established in UMRA ($62 million in 2005, adjusted annually for inflation) at some point over the next five years because CBO expects future damage awards for state and local governments under the bill's safe harbor provision (title XV) would likely be reduced.[11]

House-passed Section 1211(c) would authorize to be appropriated not more than $50 million per year for fiscal years 2006 through 2015 for all activities under the amendment to the Federal Power Act that creates the ERO. This is in addition to the dues paid by the ERO members. It is unclear whether FERC would be the sole recipient of the $50 million annual authorization since

[9] P.L. 104-4, 109 Stat. 48 *et seq.*

[10] According to NERC, Canadian utilities contribute approximately 12.5% to the total NERC budget, leaving U.S. utilities contributing approximately $45,500,000 to the 2005 NERC budget.

[11] Congressional Budget Office. Letter to Honorable David Dreier. April 19, 2005. The safe harbor provision would potentially provide a liability shield for all those who might be sued for supplying a defective renewable fuel or methyl tertiary butyl ether (MTBE).

section 1211(b) specifically states that the ERO, and its regional entities, are not Departments, agencies, or instrumentalities of the United States Government.

The proposed legislation is intended to provide federal jurisdiction over activities that are required to support reliability of the U.S. bulk power system. Clarifying FERC authority to establish and regulate an ERO is intended to improve reliability as restructuring of the U.S. bulk power system proceeds. Similar provisions were included in the conference report of H.R. 6 in the 108th Congress.

Advocates of giving FERC authority over the ERO contend that central jurisdiction would provide more accountability. FERC would be ultimately responsible for reliability issues. If the penalties employed by the ERO were not successful, then FERC would have the authority to enforce penalties for entities that did not comply with reliability standards. Establishing this new relationship between FERC and the ERO would have the potential to improve coordination between market functions and reliability functions. Similar legislation has been introduced during the past several sessions of Congress, but has not been enacted, despite general support. Minor opposition to this proposal has centered on giving FERC jurisdiction over bulk power system reliability, contending that FERC has no experience in this area. If FERC is given this authority, it would have to rely on the ERO for much of its expertise. Placing FERC in this position may add to the uncertainty associated with the changes in institutional structure as FERC takes on this new role.

Appendix F. Standard Market Design (House Sec. 1235, Senate Sec. 1234)

Under the NOPR, FERC would assert jurisdiction over all power transmission, including service to bundled retail customers. Commissioners from 15 states (Alabama, Arkansas, California, Georgia, Idaho, Kentucky, Louisiana, Mississippi, New Hampshire, North Carolina, South Carolina, Oregon, South Dakota, Washington, and Wyoming) have argued that the SMD proposal usurps state authority. On August 15, 2002, state regulators from 22 states and the District of Columbia (Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Montana, North Dakota, Ohio, Oklahoma, Texas, Wisconsin, Delaware, the District of Columbia, New Jersey, New York, Pennsylvania, West Virginia, Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island) released a statement that "voiced support for FERC's ongoing effort to remedy undue discrimination in the use of the nation's interstate high voltage transmission system in order to create a truly competitive bulk power market." Some industry groups have voiced concerns about the implementation of SMD.

On April 28, 2003, FERC staff issued *Wholesale Power Market Platform*, a White Paper intended to clarify FERC's SMD proposal. The White Paper responds to approximately 1,000 sets of formal comments submitted to FERC. In the White Paper, FERC states its intention to eliminate a proposed requirement that utilities join an Independent Transmission Provider. Instead, the final rule would require utilities to join an RTO or ISO. In the NOPR, FERC proposed to assert jurisdiction over the transmission component of bundled retail service. The White Paper reverses this position and states that the final rule will not assert new FERC jurisdiction over bundled retail sales.

Some state officials have expressed concern that the proposed rule would infringe on state authority. FERC responded to this in the White Paper by clarifying that the final rule would not include a requirement for a minimum level of resource adequacy. In addition, the final rule would eliminate the NOPR's requirement that Firm Transmission Rights be auctioned. The White Paper noted that each RTO or ISO would need to have a cost recovery policy outlined in its tariff, but each region may differ on how participant funding would be used. In addition, FERC stated that the final rule would allow for phased implementation to address regional differences.

The report language that accompanied the FY2003 Consolidated Appropriations Resolution asked the Department of Energy to analyze the SMD NOPR's impact on wholesale electricity prices, and the safety and reliability of generation and transmission facilities.[12] DOE issued its report to Congress on April 30, 2003, but did not include changes from FERC's White Paper in its analysis. DOE, in part, quantitatively analyzed the wholesale and retail price impacts of SMD using two economic models: General Electric's Multi-Area Production Simulation (MAPS) and DOE's Policy Office Electricity Modeling System (POEMS).

Some of the assumptions that DOE uses are: the annual increase in electricity demand is assumed to be approximately 1.8% per year from 2005 to 2020; most regions are assumed to have reserve margins of 15%; current environmental laws and regulations are assumed to apply; generator efficiency for fossil steam plants is assumed to be 2% to 4% higher in new RTO regions with SMD. In the non-SMD case, the models were not able to take into account freezes on retail rates in states that are transitioning to competitive markets, and no increase in transmission capacity is assumed. Under the SMD case, a 5% increase in transmission capability by 2005 is assumed by DOE due to improved operational efficiency at regional seams. In addition, DOE assumes that

[12] Conference report H.Rept. 108-10 to accompany H.J.Res. 2.

adopting the SMD would result in some savings that are difficult to quantify but would be a result of several factors including the consolidation of control areas from the currently existing 150, the possible avoidance of capital cost and software expenditures that would have been needed at existing control centers, improved regional planning, and consistency of market design. DOE assigns a 10% savings due to these efficiency improvements. DOE believes that the assumptions used in the models are conservative and result in an underestimation of the net economic benefits of the SMD.

DOE calculates the median cost of FERC's SMD rule to be about $760 million per year, or about 21 cents per megawatt-hour. The model's range for uncertainties is estimated to be about $100 million. The cost varies significantly by region, ranging from 47 cents per megawatt-hour for GridFlorida to 12 cents per megawatt-hour for PJM.[13] Regions with existing RTOs have zero additional costs. Under the SMD case, the effects of SMD on retail rates are influenced to a significant extent by whether the states in question have cost-of-service regulation or competitive retail choice. DOE found that for some importing regions with cost-based rates, the net result could be increased costs associated with wholesale purchases, which would be passed through to retail customers. For some exporting regions with cost-based rates, additional utility revenues from exports are expected to lead to lower retail prices for the region under the SMD case. In contrast, in regions in which most states have adopted retail choice, increased electricity exports are expected to lead to higher market-clearing prices in the short-term markets and somewhat higher consumer prices. However, in areas such as California that are projected to see increased imports, lower wholesale prices and lower prices for consumers are expected. DOE found that the magnitude of the projected changes, both positive and negative, decreases through 2020. Overall, DOE projects the net benefit for all consumers would be about $1 billion per year over the first six years, after factoring in the estimated $760 million per year and RTO costs. Over the long-term (2016-2020), the net benefit is expected to be about $700 million per year. However, the projected change in retail prices varies by region. The mid-Atlantic region is expected to see a 4% decrease in retail prices, but Illinois, Wisconsin, and Arizona are expected to have a 3% increase in retail prices as a result of SMD.

[13] The PJM control area includes all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

Appendix G. Cogeneration and Small Power Production Purchase and Sale Requirements (Sec. 1253)

In addition to PURPA, the Fuel Use Act of 1978 (FUA) helped qualifying facilities (QFs) become established.[14] Under FUA, utilities were not permitted to use natural gas to fuel new generating technology. QFs, which are by definition not utilities, were able to take advantage of abundant natural gas as well as new generating technology, such as combined-cycle plants that use hot gases from combustion turbines to generate additional power. These technologies lowered the financial threshold for entrance into the electricity generation business as well as shortened the lead time for constructing new plants. FUA was repealed in 1987, but by this time QFs and small power producers had gained a portion of the total electricity supply.

This influx of QF power challenged the cost-based rates that previously guided wholesale transactions. Before implementation of PURPA, FERC approved wholesale interstate electricity transactions based on the seller's costs to generate and transmit the power. Since nonutility generators typically do not have enough market power to influence the rates they charge, FERC began approving certain wholesale transactions whose rates were a result of a competitive bidding process. These rates are called market-based rates.

This first incremental change to traditional electricity regulation started a movement toward a market-oriented approach to electricity supply. Following the enactment of PURPA, two basic issues stimulated calls for further change: whether to encourage nonutility generation and whether to permit utilities to diversify into non-regulated activities.

The Energy Policy Act of 1992 (EPACT) removed several regulatory barriers for entry into electricity generation to increase competition of electricity supply.[15] However, EPACT does not permit FERC to mandate that utilities transmit exempt wholesale generator (EWG) power to retail consumers (commonly called "retail wheeling" or "retail competition"), an activity that remains under the jurisdiction of state public utility commissions. PURPA began to shift more regulatory responsibilities to the federal government, and EPACT continued that shift away from the states by creating new options for utilities and regulators to meet electricity demand.

Proponents of PURPA repeal—primarily investor-owned utilities (IOUs) located in the Northeast and in California—argue that their state regulators' "misguided" implementation of PURPA in the early 1980s has forced them to pay contractually high prices for power they do not need. They argue that, given the current environment for cost-conscious competition, PURPA is outdated. The PURPA Reform Group, which promotes IOU interests, strongly supports repeal of §210 of PURPA contending that the current law's mandatory purchase obligation is anti-competitive and anti-consumer.

Opponents of mandatory purchase requirement repeal (independent power producers, industrial power customers, most segments of the natural gas industry, the renewable energy industry, and environmental groups) have many reasons to support PURPA as it stands. Mainly, their argument is that PURPA introduced competition in the electric generating sector and, at the same time, helped promote wider use of cleaner, alternative fuels to generate electricity. Since the electric generating sector is not yet fully competitive, they argue, repeal of PURPA would decrease

[14] P.L. 95-620.

[15] P.L. 102-486.

competition and impede the development of the renewable energy industry. Additionally, opponents of PURPA repeal argue that it would result in less competition and greater utility monopoly control over the electric industry. Some state regulators have expressed concern that §210 repeal would prevent them from deciding matters currently under their jurisdiction.

Appendix H. Repeal of the Public Utility Holding Company Act of 1935 (House Sec. 1263, Senate Sec. 1273)

Historically, electricity service was defined as a natural monopoly, meaning that the industry has (1) an inherent tendency toward declining long-term costs, (2) high threshold investment, and (3) technological conditions that limit the number of potential entrants. In addition, many regulators have considered unified control of generation, transmission, and distribution as the most efficient means of providing service. As a result, most people (about 75%) are currently served by a vertically integrated, investor-owned utility.

As the electric utility industry has evolved, however, there has been a growing belief that the historic classification of electric utilities as natural monopolies has been overtaken by events and that market forces can and should replace some of the traditional economic regulatory structure. For example, the existence of utilities that do not own all of their generating facilities, primarily cooperatives and publicly owned utilities, has provided evidence that vertical integration has not been necessary for providing efficient electric service. Moreover, recent changes in electric utility regulation and improved technologies have allowed additional generating capacity to be provided by independent firms rather than utilities.

The Public Utility Holding Company Act and the Federal Power Act (FPA) of 1935 (Title I and Title II of the Public Utility Act) established a regime of regulating electric utilities that gave specific and separate powers to the states and the federal government. A regulatory bargain was made between the government and utilities. In exchange for an exclusive franchise service territory, utilities must provide electricity to all users at reasonable, regulated rates. State regulatory commissions address intrastate utility activities, including wholesale and retail rate-making. State authority currently tends to be as broad and as varied as the states are diverse. At the least, a state public utility commission will have authority over retail rates, and often over investment and debt. At the other end of the spectrum, the state regulatory body will oversee many facets of utility operation. Despite this diversity, the essential mission of the state regulator in states that have not restructured is the establishment of retail electric prices. This is accomplished through an adversarial hearing process. The central issues in such cases are the total amount of money the utility will be permitted to collect and how the burden of the revenue requirement will be distributed among the various customer classes (residential, commercial, and industrial).

Under the FPA, federal economic regulation addresses wholesale transactions and rates for electric power flowing in interstate commerce. Federal regulation followed state regulation and is premised on the need to fill the regulatory vacuum resulting from the constitutional inability of states to regulate interstate commerce. In this bifurcation of regulatory jurisdiction, federal regulation is limited and conceived to supplement state regulation. FERC has the principal functions at the federal level for the economic regulation of the electric utility industry, including financial transactions, wholesale rate regulation, transactions involving transmission of unbundled retail electricity, interconnection and wheeling of wholesale electricity, and ensuring adequate and reliable service. In addition, to prevent a recurrence of the abusive practices of the 1920s (e.g., cross-subsidization, self-dealing, pyramiding, etc.), SEC regulates utilities' corporate structure and business ventures under PUHCA.

The electric utility industry has been in the process of transformation. During the past two decades, there has been a major change in direction concerning generation. First, improved

technologies have reduced the cost of generating electricity as well as the size of generating facilities. Prior preference for large-scale—often nuclear or coal-fired—powerplants has been supplanted by a preference for small-scale production facilities that can be brought on line more quickly and cheaply, with fewer regulatory impediments. Second, this has lowered the entry barrier to electricity generation and permitted non-utility entities to build profitable facilities.

One argument for additional PUHCA change has been made by electric utilities that want to further diversify their assets. Currently under PUHCA, a holding company can acquire securities or utility assets only if the SEC finds that such a purchase will improve the economic efficiency and service of an integrated public utility system. It has been argued that reform to allow diversification would improve the risk profile of electric utilities in much the same way as in other businesses: the risk of any one investment is diluted by the risk associated with all investments. Utilities have also argued that diversification would lead to better use of under-utilized resources (due to the seasonal nature of electric demand). Utility holding companies that have been exempt from SEC regulation argue that PUHCA discourages diversification because the SEC could repeal exempt status if exemption would be "detrimental to the public interest."

For a number of years there has been significant bipartisan congressional support for repealing much of PUHCA. Since the 1980s, the Securities and Exchange Commission has testified before Congress that many provisions of PUHCA are no longer relevant and other provisions are redundant with state and other federal regulations.[16] However, as a result of Enron's dealings and collapse, some in Congress have taken a somewhat different view toward significantly amending or repealing PUHCA.[17] Even though Enron had claimed exemption from PUHCA, on February 6, 2003, Securities and Exchange Commission Chief Administrative Law Judge Brenda P. Murray denied Enron's PUHCA exemption applications of April 12, 2000, and February 28, 2002, amended on May 31, 2002.[18] In the case of Enron, PUHCA, and many other laws, did not deter or prevent fraudulent filing of information with the SEC.

State regulators have expressed concerns that increased diversification could lead to abuses, including cross-subsidization: a regulated company subsidizing an unregulated affiliate. Cross-subsidization was a major argument against the creation of exempt wholesale generators (EWGs) and has reemerged as an argument against further PUHCA change. In the case of electric and gas companies, non-utility ventures that are undertaken as a result of diversification may benefit from the regulated utilities' allowed rate of return. Moneymaking non-utility enterprises would contribute to the overall financial health of a holding company. However, unsuccessful ventures could harm the entire holding company, including utility subsidiaries. In this situation, opponents fear that utilities would not be penalized for failure in terms of reduced access to new capital, because they could increase retail rates.

[16] Testimony is available at http://www.sec.gov/news/testimony/021302tsich.htm.

[17] See http://www.house.gov/commerce_democrats/press/107ltr129.shtml.

[18] Initial Decision Release No. 222 (File No. 3-10909) can be found at http://www.sec.gov/litigation/aljdec/id222bpm.htm.

Appendix I. Continuation of Transmission Security Order (Sec. 1441)

In 2002, a 24-mile 330-megawatt (MW) transmission cable was installed beneath the seabed of Long Island Sound between Connecticut and Long Island. Shortly after the line was installed, it was determined that in several places the cable was not buried to depths specified in permits issued by the U.S. Army Corps of Engineers (Corps) and the Connecticut Department of Environmental Protection (CDEP). While the Corps determined that operation of the cable would not pose environmental or navigational harm and did not object to the operation of the transmission line, the CDEP objected to the operation of the line based on procedural grounds. CDEP's position was that operation of the cable would violate the permit, unless the cable was installed to the permitted depth requirements. CDEP denied a request to modify the permit.

On June 12, 2003, Cross-Sound, the owners of the cable, filed a new permit application with the CDEP. However, on June 26, 2003, Connecticut Governor John Rowland signed into law a bill extending a prohibition on considering permits or applications related to certain infrastructure crossings of the sound. On August 14, 2003, the Northeast experienced a widespread electric blackout. In response, Secretary of Energy Spencer Abraham issued an emergency order to energize the cross-sound cable. This order was rescinded on May 7, 2004. Long Island Power Authority (LIPA) and Cross-Sound filed a petition with FERC to have the cable re-energized by July 1, 2004. At a June 17, 2004, FERC meeting, Chairman Pat Wood asked the parties to negotiate a settlement within seven days, after which FERC was ready to issue an order. On June 25, 2004, the parties came to an agreement and the cross-sound cable was re-energized.

Appendix J. Deadline for Decision on Appeals under the Coastal Zone Management Act (Sec. 2013)

Current Law

The consistency provisions in Section 307 of the CZMA guides state consideration of whether a proposed federal activity will be compatible with a federally approved and state-administered coastal zone management plan. Since the first state plan was approved in the mid-1970s, there has been considerable friction between states and federal agencies over the reach of the consistency provisions. States have sought broader application to have a strong role in decisions about the largest possible array of proposed federal activities, while the federal government has sought narrower interpretations, especially relating to offshore energy development. Determining an exact boundary separating actions on which the state is to have a primary role in halting a proposal from actions on which the state does not have such powers has been a subject of federal appeals and litigation, including decisions by the U.S. Supreme Court (notably *Secretary of the Interior v. California*, 464 U.S. 312 (1984)), in which the court determined that the sale of oil and gas leases on the outer continental shelf was not an act affecting the coastal zone).

When a state and a federal agency cannot reach an agreement on a consistency determination, the law and regulations lay out an elaborate process for resolving that disagreement. Most disagreements are resolved through this process, but if no agreement can be reached, the final step is an appeal to the Secretary of Commerce to make a decision. Appeals to the Secretary have not been common. According to citations of appeals posted on the website of the Office of Ocean and Coastal Resource Management in the National Oceanic and Atmospheric Administration (NOAA) (viewed May 12, 2005), 38 consistency determinations were appealed to the Secretary between 1984 and 1999, and 19 of them involved proposed activities by oil companies. The appeals process, like all other aspects of consistency, is currently covered under a final rule issued by NOAA in the December 8, 2000, *Federal Register.*

Section 319 in current law has less detail than the proposed amendment. It states that the Secretary will either issue a final decision on the appeal or publish a notice in the *Federal Register* stating why a decision cannot be reached within 90 days after the record has closed. If the Secretary publishes a notice that a decision has not been made, that decision must be issued within 45 days of the date of publication of that notice.

Policy Context

Consistency appeals have been contentious and, in some instances, the appeals process has dragged on for long time periods. The 1996 amendments in Section 319 were meant to address those delays by establishing some time limits. This has proved unsatisfactory to some, who seek additional statutory language that would remove decisions about deadlines from the unpredictable rulemaking process by defining the length of component steps in law, and therefore the overall process, after an appeal to the Secretary has been filed.

The consistency provision creates an unusual relationship where states can halt most federal actions that are incompatible with state interests. When enacted, the consistency requirement was viewed as a main reason why states would pursue development and implementation of coastal plans since the other incentive to participate, federal financial grants, always has been modest.

This view appears to have some validity, as 34 of the 35 eligible states and territories are now administering federally approved coastal management programs.

Appendix K. Domestic Offshore Energy Reinvestment (Sec. 2053)

Policy Context

This is the most recent of repeated efforts to allocate a portion of federal offshore oil and gas revenues to coastal states to assist them in addressing the impacts of these activities. Recent Congresses, starting with the 105th, considered numerous similar legislative proposals. These proposals came to be known as CARA, or the Conservation and Reinvestment Act. In the 106th Congress, the House passed a version of CARA on May 11, 2000 (H.R. 701). Some of these proposals were also reflected in the Clinton Administration's Lands Legacy Initiative proposal in 2000, and also a one-time $150 million appropriation provided in the FY2001 Commerce appropriations legislation (P.L. 106-553) for coastal impact assistance.

Support for the CARA proposals, which would also have funded many related federal natural resource protection programs, grew as the budget deficit of the early and mid-1990s was replaced by forecasts of a surplus, as protecting natural resources came to be viewed as part of the effort to address sprawl, and as efforts and support to secure federal funding for coastal resource protection and restoration efforts grew. With the replacement of the budget surplus forecast with deficit forecasts and changing national priorities since the 9/11 terrorist attacks, broad support for wide-ranging legislation like CARA has declined, but interest has remained in returning a portion of the money currently paid to the federal government by private companies leasing offshore areas to those locations most affected by the offshore activity.

Author Information

Mark Holt, Coordinator
Specialist in Energy Policy

Carol Glover, Coordinator
Information Research Specialist

Disclaimer